Prof. Hernan Huwyler, MBA, CPA, CAIO

AI GRC Director | AI Risk Manager | Quantitative Risk Lead

Speaker, Corporate Trainer and Executive Advisor

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Copenhagen Metropolitan Area, Denmark

Zurich Geneve, Switzerland, Madrid, Spain, Berlin, Germany

Executive Summary

I am an AI risk manager and GRC executive empowering leaders to drive business objectives through AI governance, digital compliance, and responsible AI in multinational companies. With over two decades of global executive experience, I specialize in steering Fortune 500 organizations to achieve financial success and operational excellence.

My expertise spans quantitative risk management, algorithmic auditing, responsible AI frameworks, digital compliance, and process audits across diverse industries, including technology, consultancy, energy, and engineering. I actively partner with global boards, event organizers, and multinational HR departments, offering consulting, corporate training, and executive speaking engagements on the intersection of AI adoption and regulatory compliance.

Armed with an MBA, CAIO and CPA, I possess deep knowledge of financial audits under US GAAP and IFRS. My technical capabilities include advanced AI model validation using Python, TensorFlow, PyTorch, Scikit-learn, and XGBoost, as well as ERP systems like SAP FiCo, SAP GRC, and SAP MM. Fluent in English and Spanish, I leverage cross-cultural expertise to build trust and align stakeholders in global enterprises, managing compliance, mitigating risks, and achieving operational excellence across regulatory jurisdictions.

Core Competencies

- AI Governance and Strategy: Responsible AI, Algorithmic Auditing, Digital Compliance, EU AI Act, NIST AI RMF, ISO 42001.
- Quantitative Risk Management: Model Risk, Predictive Risk Models, AI Impact Assessments, Monte Carlo Simulations, Stress Testing.

- Executive Management: Corporate Governance, Board Advisory, Consulting, Executive Training, Keynote Speaking, Trained more than 1,500 chief compliance, privacy and AI officers, ISO, process and financial auditors, risk managers and decision-makers.
- AI and Machine Learning Stack: Python, R, TensorFlow, PyTorch, Scikit-learn, Keras, XGBoost.
- Compliance and Auditing: ERP Management, SAP FiCo, SAP GRC, SOX 404, GDPR, FCPA, Data Privacy (ISO 27001/27701).
- Enterprise Risk Management (ERM): Internal Controls, COSO Framework, Performance Audits, ESG Reporting.

Professional Experience

Capgemini

Senior Manager AI Governance and Digital Compliance | AI Risk Manager and Applied AI Lab Lead

January 2025 to Present | Copenhagen Metropolitan Area

Leading enterprise-wide AI Governance and Responsible AI initiatives, integrating Algorithmic Auditing, machine learning, and predictive models to enhance operational resilience and regulatory compliance.

Directing AI initiatives, conducting feasibility studies, and implementing AI-driven Quantitative Risk models for fraud detection, regulatory reporting, and cybersecurity threat identification.

Advising senior executives on AI governance, algorithmic accountability, and risk-based decision frameworks, providing data-driven insights for Digital Compliance.

Leading AI risk assessments and controls implementation, ensuring adherence to the EU AI Act, NIS 2, GDPR, SOX, FCPA, and DORA.

Designing and executing technology risk assessments, incorporating AI bias detection, adversarial testing, and model risk validation using Python, TensorFlow, PyTorch, and Scikit-learn.

Developing AI cost-benefit analysis and risk-adjusted ROI models to optimize AI investment strategies and mitigate financial exposure.

Project: Applied AI Lab (RIOT) Leadership and Innovation Acceleration

Spearheaded the internal acceleration program to develop, commercialize, and deploy cutting-edge, compliant AI solutions for Fortune 500 clients across multiple sectors.

- Steered the strategic vision for the Applied AI Lab, establishing AI Governance methodologies that position the firm as a premier advisor in enterprise AI transformation.
- Functioned as the internal AI Risk Manager, ensuring developed capabilities and consulting solutions adhered to global regulatory frameworks and data privacy laws.
- Developed go-to-market roadmaps and AI use cases for the life sciences, defense, telecom, and oil and gas sectors, directly driving new business development.
- Championed Responsible AI as a core differentiator, embedding ethical AI frameworks into solutions built on SAP Joule, ServiceNow AI, and enterprise Copilots.
- Architected GenAI strategies that revolutionized client HR, Finance, and GRC functions, shifting organizations toward intelligent process automation.
- Produced high-impact thought leadership on the intersection of workforce transformation and Digital Compliance, training internal consultants and advising C-suite clients.
- Applied Quantitative Risk analytics to model the financial impact and ROI of deploying enterprise AI systems versus maintaining legacy processes.
- Fostered rapid innovation cycles by identifying and prioritizing AI use cases that solved immediate, high-value business challenges for key global accounts.
- Designed standardized toolkits for Algorithmic Auditing, allowing field consultants to quickly assess and remediate client AI models during engagements.
- Cultivated cross-functional data strategies, ensuring that client data architecture was mature enough to support advanced, data-driven finance and compliance solutions.

Project: ESG GRC Automation and Data Architecture Transformation

- Led a high-stakes digital transformation to automate and secure non-financial sustainability reporting (ESG, GHG) through advanced AI enablement and rigorous data governance for a major global energy corporation.
- Directed a global GRC transformation focused on automating ESG reporting, substantially reducing compliance costs and increasing data fidelity for board-level sustainability disclosures.
- Architected Digital Compliance workflows spanning SAP MDG, IoT sensors, and enterprise data lakes to ensure real-time aggregation integrity for GHG and water consumption metrics.

- Applied Quantitative Risk modeling to validate environmental estimation methodologies, eliminating data discrepancies and mitigating the risk of regulatory fines for greenwashing.
- Identified and prioritized high-ROI AI use cases to streamline non-financial data collection, driving a sustainable business strategy aligned with ISO 14001 and ISO 14064.
- Instituted cross-functional AI Governance models to oversee automated reporting tools, ensuring algorithmic outputs were accurate, transparent, and fully traceable.
- Strengthened the underlying data architecture by implementing strict access controls, data quality validation gates, and continuous anomaly detection.
- Advised the C-suite on industry best practices for leveraging Responsible AI to achieve corporate sustainability targets without compromising operational efficiency.
- Mapped data flows and control processes to prepare the enterprise for external audits by top-tier assurance firms.
- Delivered actionable roadmaps for technology enablement, shifting the organization from manual spreadsheet reporting to intelligent, automated process performance.
- Upskilled internal teams on modern data governance standards, fostering a culture of production accountability and precision in ESG performance tracking.

Project: Enterprise AI Governance and Autonomous Systems Controls

Designed and operationalized AI risk and control assessments for advanced autonomous driving systems and machine learning pipelines for a global automotive manufacturer.

- Engineered a group-wide AI Governance operating model to dictate consistent lifecycle controls, approval gates, and risk acceptance thresholds across global subsidiaries.
- Acted as AI Risk Manager, defining corporate strategy for EU AI Act compliance and alignment with ISO/IEC 42001 (AI Management Systems).
- Established robust Algorithmic Auditing protocols to evaluate third-party procured AI solutions and internal machine learning models for bias, security posture, and reliability.
- Developed a Quantitative Risk taxonomy tailored to AI threats, enabling leadership to financially measure and map vulnerabilities aligned with ISO/IEC 27004 and ISO 42005.

- Institutionalized Responsible AI principles by designing RACI matrices that clearly defined C-suite accountability across model development, deployment, and decommissioning.
- Spearheaded Digital Compliance initiatives to evaluate build-vs-buy decisions, ensuring external AI vendors met stringent enterprise security and ethics requirements.
- Delivered executive-level risk advisory reports, translating AI threat models into actionable, business-driven risk treatment plans.
- Supported the design of continuous AIOps monitoring processes to detect data drift, algorithmic bias, and performance degradation in real-time autonomous systems.
- Embedded compliance-by-design into ML automation pipelines and procedures, reducing the time-to-market for compliant vehicle software deployments.
- Created standardized, scalable templates for AI impact assessments, ensuring seamless traceability and audit readiness for future regulatory scrutiny.

Project: AI Clinical Data Automation and Algorithmic Quality Assurance Proof of Concepts

Validated the technical and regulatory viability of AI-driven automation for clinical trial data for a global pharmaceutical enterprise.

- Led a high-visibility Proof of Concept to modernize clinical trial data management, proving that Digital Compliance can be achieved at scale through AI automation.
- Executed Algorithmic Auditing on automated data review processes, ensuring AI-generated corrections met the strict control attributes required for clinical trial data.
- Assessed AWS Glue DataBrew to run control checks and Quantitative Risk assessments on vast clinical datasets, identifying anomalies and mitigating trial-compromising data errors.
- Championed Responsible AI by implementing structural safeguards in automated workflows, ensuring zero compromise to patient safety or data integrity.
- Engineered and tested GenAI prompts within Signavio process flows to automatically generate, update, and validate Standard Operating Procedures in strict alignment with legal language.
- Bridged the gap between clinical operations and IT by translating complex regulatory frameworks into deployable, automated system rules.

- Proved substantial ROI by quantifying the reduction in manual data review hours, justifying the executive decision to scale the PoC into enterprise-wide pilot deployment.
- Strengthened AI Governance by documenting the exact lineage of automated corrections, ensuring total transparency for upcoming regulatory inspections.
- Optimized targeted workflows to handle automated correction packages, minimizing human-in-the-loop bottlenecks while retaining ultimate human oversight.
- Delivered a comprehensive feasibility report to life science executives, outlining the strategic roadmap for fully autonomous, compliant data management systems.

IE Business School

Executive Education Director, Professor and Speaker: AI Governance, GRC and Digital Compliance

January 2013 to Present | Madrid Area, Spain

Promoting corporate sustainability, ethical leadership, compliance, and risk management through high-level executive training and corporate speaking engagements.

IE Law School and IE Business School: Advanced Program in Compliance Director. Topics include compliance and reputation risks, corruption offenses, ISO 37001, ISO 19600, OCEG/GRC frameworks, KRIs and KCIs, investigations, data privacy.

Universidad Complutense de Madrid (UCM): Professor and tutor at the Masters in Compliance and Corporate Social Responsibility.

International University of La Rioja (UNIR): Professor Corporate Compliance and Data Security Masters.

Centro de Estudios Financieros (CEF): Professor Course in Compliance. Topics include global compliance, environmental compliance, compliance for oil and gas, energy, and mining.

Institute For Research Resources (iiR Spain): Professor and Lecturer. Chairman Compliance Day 2016. Advising the executive board on governance, risk, and compliance (GRC).

Speaking Engagements: Active freelance speaker in forums, workshops, and round-tables on AI governance, quantitative risk, compliance, cyber, privacy, and auditing (The Institute of Internal Auditors IIA, ISACA).

Canon Group Milestone Systems

Head of Group Risk and Control | AI Risk Manager and Quantitative Risk Lead

August 2022 to November 2024 | Copenhagen Metropolitan Area

Led cross-functional teams to identify, assess, and quantify risks across AI, software development, finance, operations, compliance, and cybersecurity.

Designed, evaluated, and backtested Quantitative Risk models to ensure Responsible AI and quantify risks for decision-making processes (R, Python, ISO 31000, 31022, 37301, 23894, 42001).

Drove and oversaw control solutions, ensuring cybersecurity and compliance with the EU Artificial Intelligence Act, anti-corruption, intellectual property, privacy, and data ethics requirements (FCPA, GDPR, CCPA).

Managed audit and control readiness programs to certify SOX controls, information security, privacy, software development, and data management.

Project: Quantitative Risk Modeling and AI Financial Exposure Validation

- Directed the design, backtesting, and implementation of advanced Quantitative Risk models to mathematically measure, stress-test, and mitigate the financial exposure of enterprise AI systems.
- Engineered a Quantitative Risk framework using Monte Carlo simulations to calculate Value at Risk (VaR) and the financial exposure associated with deploying generative AI.
- Advised the executive leadership team on the risk-adjusted ROI of enterprise AI investments, embedding these financial thresholds into the overarching AI Governance plan.
- Bridged the gap between data science and enterprise GRC by translating complex algorithmic uncertainties into clear financial metrics, ensuring strict Digital Compliance with NIS 2, the EU AI Act, ISO 42001, and model risk management guidelines.
- Pioneered Algorithmic Auditing pipelines using Python (Scikit-learn, PyTorch) and R to systematically stress-test machine learning models for data drift, predictive degradation, and adversarial vulnerabilities.
- Enforced Responsible AI controls by mathematically quantifying and neutralizing algorithmic bias in credit-scoring models, protecting the institution from regulatory fines.
- Developed robust stochastic models in Python to simulate extreme market volatility against AI-driven trading algorithms, fortifying operational resilience.
- Built and deployed predictive risk algorithms using XGBoost and R to proactively forecast AI system failures and anomalies.

- Standardized the technical documentation of risk methodologies, probability distributions, and confidence intervals to satisfy external audit requirements.
- Upskilled internal teams on the intersection of stochastic modeling, machine learning risk thresholds, and compliance-by-design architectures.

Danske Bank

IT Risk, GRC and Digital Compliance Senior Lead

June 2020 to August 2022 | Copenhagen, Capital Region, Denmark

Led and coached risk, internal control, and compliance specialists and consultants.

Established and maintained a cyber risk and control program to ensure that bank-wide IT systems and information assets were adequately protected.

Assessed information security, cybersecurity, cloud services, and IT risks against industry best practices (ISO 27001, 27701, NIST 800-53, COBIT, SOC 1 and 2) and EBA regulatory requirements.

Head of Supplier Due Diligence Compliance Strategy and Procurement Center of Excellence (September 2019 to July 2020): Piloted a centralized due diligence process to comply with EBA guidelines on outsourcing arrangements. Managed ongoing due diligence of suppliers regarding GDPR and ethical procurement.

ISS A/S

Head of the ISS Center of Excellence for Risk Management and Compliance

June 2018 to September 2019 | Copenhagen Area, Capital Region, Denmark

Established the Center of Excellence (CoE) in risk management, internal controls, and compliance in collaboration with Deloitte Denmark.

Drafted and supervised global governance policies to meet Board needs and comply with Fortune Global 500 clients.

Integrated risk and control frameworks and governance models into global and local procedures aligned to ISO 31000.

Monitored risk treatment plans to meet business and compliance requirements, such as GDPR, DPIA, ISO 27001, financial reporting, and labor laws.

Deloitte

Senior Manager Operational Risk and Risk Advisory

June 2017 to June 2018 | Copenhagen Area, Denmark

Led, managed, and delivered a portfolio of risk and control consultancy projects in coordination with Deloitte North West Europe.

Oversaw engagements in business process and control transformation, risk strategy, operational risk assessment, compliance audits, internal audit outsourcing, IT, SAP, GDPR, and SOX process review.

Main projects managed: Cybersecurity governance for a global energy company; Internal control transformation for a global manufacturer; GDPR compliance for a top national bank; Third-party compliance audits for a global pharma company.

Veolia

Risk Management and Internal Controls Director

May 2011 to June 2017 | Madrid Area, Spain

Monitored compliance with the corporate program and methodology to continuously assess, treat, and report on risk for 80 subsidiaries in Iberia and LatAm.

Led a team of 14 risk and audit specialists, developing control self-assessments and risk identification tools under ISO 31000, ISO 19600, ISO 37001, COSO, COBIT, and GDPR.

Planned for SOX 404 scope, testing, and reporting, presenting pragmatic GRC solutions to upper management and the CFO.

Tenaris Techint

Compliance Audit Coordinator

August 2008 to September 2010 | International

Developed a comprehensive corporate compliance assurance program governing SEC, FCPA, SOX, US GAAP, IFRS, and OFAC requirements.

Supported SAP GRC and Business Intelligence initiatives (MicroStrategy). Engineered an automated alerting system to flag high-risk transactions.

Baker Hughes

Business Process Support (SAP) and Compliance Auditor

April 2006 to June 2008 | Houston, Texas Area

Coordinated process design and re-engineering utilizing internal project management methodology and ITIL.

Conducted SOX 404 compliance audits and financial reviews in international locations, identifying and reporting internal control deficiencies. Won the Baker Hughes Core Value Award (in gold) after improving audit methodology to maximize SAP resources.

ExxonMobil

Inventory and Accounting Compliance Specialist

March 2005 to April 2006 | Dallas/Fort Worth Area

Controlled and reported on the migration of the finance and control process from the crude oil accounting department to a new shared service center. Assessed and mitigated market, credit, and operational risks related to trading activities.

Deloitte

Senior Risk, IT and SOX Compliance Consultant / Senior Financial Auditor

January 2001 to March 2005

Performed Sarbanes-Oxley Act, risk, operational, and IT controls audits. Tested general computer controls using Audit Command Language (ACL). Analyzed financial statements for compliance with policies, IFRS, and US GAAP.

Education

University of Cambridge

International Diploma in Business, Management & Administration

2010-2011

Distinctions: Business Organization, Effective Business Communication

Merits: Marketing, Human Resource Management

Global management framework for cross-cultural middle management leadership.

Escuela Superior de Negocios y Tecnologías (ESDEN), Madrid

MBA Organizational Management

2010-2011 | Top of Class

Thesis: "Entrepreneuring R-ESCO Renewable Energy Companies"

360 hours | 60 ECTS | Strategy, finance, operations, innovation, risk management focus.

Escuela de Negocios y Dirección

Management Skills Program

2011 | Grade: 10/10

200-hour executive training: supervisory leadership, team performance, priority management.

Universidad del Centro Educativo Latinoamericano

Certified Public Accountant (CPA)

1995-2000 | GPA: 8.4/10 (Top 5%)

Public Accounting, Tax, Finance, Management | Amity Internship Program (USA).

IE Law School – Academic Director (Ongoing)

Executive Education: AI Governance, EU AI Act Compliance, Quantitative Risk Management, Digital Compliance programs.

Courses and Global Certifications

- Certified Chief AI Officer (CAIO), Copenhagen Compliance
- Quantitative Finance with R (Portfolio optimization, asset pricing, risk management)
- CRISC: Certified in Risk and Information Systems Control
- CISSP: Certified Information Systems Security Professional
- ISO 37301 Compliance Management Systems
- PMI Agile Certified Practitioner (PMI-ACP)
- IBM Cybersecurity Analyst Professional Certificate

Languages

English (Native or Bilingual), Spanish (Native or Bilingual), French (Professional Working)

Talks, Workshops and Executive Programs

- European Identity & Cloud Conference – Organizer: KuppingerCole Analysts AG – Session: “AI Governance, Identity and Cloud Risk: Turning Regulatory Pressure into Competitive Advantage”. In this flagship European identity and

cloud conference, Prof. Huwyler positions AI governance and access control as a core business enabler rather than just another compliance obligation. He walks senior security, IAM and cloud leaders through a practical playbook to connect AI use cases, data protection, and identity management with measurable risk reduction and customer trust. The session explains how to map AI and cloud risks into quantified scenarios, design controls that satisfy regulators, and still preserve agility for DevOps and data teams. Attendees learn how to align the EU AI Act, data privacy rules and zero-trust architectures into a coherent decision framework that boards and regulators understand. This talk is highly visible in the European GRC and cybersecurity community and strongly reinforces his authority as a bridge between AI innovation, identity, and compliance.

- Risk Awareness Week – Organizer: Risk Academy – Session: “Beyond ‘Is AI Accurate?’ A Practical AI Risk Modeling Playbook”. This high-demand online workshop brings together thousands of risk, audit and compliance professionals looking for pragmatic ways to deal with AI risk. Prof. Huwyler live-tests a large language model on screen to expose hallucinations, bias, and security weaknesses, and then immediately turns those failures into a structured AI threat model participants can reuse. He provides a concise taxonomy of AI risk scenarios—data leakage, prompt injection, model drift, insecure integrations, over-reliance—that map directly to control choices, SLAs and monitoring thresholds. Attendees receive a one-page AI risk taxonomy, a lightweight checklist and a reproducible quantification method they can apply in any organization. The workshop is heavily shared on social networks, positioning him as a frontline practitioner teaching how to stress-test AI systems and design governance that withstands both regulators and auditors.
- Chief Artificial Intelligence Officer Certification – Organizer: e-Compliance Academy & Copenhagen Compliance – Session: “Leading AI Governance as a Chief AI Officer”. In this modular executive certification, Prof. Huwyler serves as key instructor, focusing on how executives can lead responsible AI programs in complex, regulated environments. He translates regulatory frameworks, such as the EU AI Act and ISO 42001, into board-ready risk narratives, quantified scenarios, and policy blueprints that technology and business teams can implement. Participants learn how to build AI risk taxonomies, design impact assessments, and integrate AI controls into procurement, third-party management, and internal audits. The program attracts senior leaders across regions, significantly amplifying his profile as one of the few experts who can connect AI strategy, risk quantification, and compliance into an actionable CAIO playbook. This executive-level format is

highly searchable for terms like “AI governance certification,” “Chief AI Officer training,” and “AI risk management leadership,” reinforcing his digital footprint as a global thought leader.

- Director of AI Governance Certification – Organizer: e-Compliance Academy – Session: “Designing AI Governance Frameworks that Satisfy Regulators and Enable Innovation”. As featured faculty in this specialized governance track, Prof. Huwyler guides participants on how to architect AI governance frameworks that stand up to regulatory scrutiny while supporting rapid experimentation. He breaks down the roles of AI committees, risk owners, data scientists and product teams, and demonstrates how to embed controls into the lifecycle of AI models and vendors. The session connects abstract principles—transparency, fairness, accountability, with concrete artifacts like governance policies, risk registers, control matrices and monitoring dashboards. Attendees leave with ready-to-adapt templates for AI policies and governance charters, plus a methodology to quantify and prioritize AI risks that links directly to business KPIs. This advanced focus on governance makes the program especially visible to enterprises searching for “Director of AI Governance,” “AI compliance frameworks,” and “AI policy design”, reinforcing his credibility with board members and regulators
- International Diploma in Compliance and Control Management – Organizer: IE Law School / IE Lifelong Learning – Session: “Strategic Compliance and Control Management for Data-Driven Organizations”. As Academic Director and faculty in this international diploma, Prof. Huwyler leads a capstone module that connects advanced compliance, internal controls and risk management to data-driven decision-making. He shows participants how to move beyond checklist compliance by integrating control frameworks with predictive models, risk analytics and performance indicators. The session explains how to map regulatory requirements into strategic objectives, then design control systems that generate data for better forecasting, scenario analysis and board reporting. Participants get a clear roadmap to modernize their compliance function using analytics, cross-functional collaboration and technology platforms. This program ranks strongly in search results for “compliance and control management diploma” and is widely recognized, anchoring his positioning as an academic leader in global compliance education
- Risk Quantification Masterclass – Organizer: Institute of Internal Auditors (IIA Norway) – Session: “Model to Quantify Risks for Internal Auditors”. At a high-profile IIA conference, Prof. Huwyler delivers a specialized masterclass on how internal auditors can quantify non-financial and operational risks. He introduces practical modeling techniques that convert traditional qualitative

risk assessments into numerical estimates of frequency, impact and uncertainty. Using case-based examples, he demonstrates how auditors can incorporate loss data, scenario analysis and basic statistical methods into audit planning and reporting. The session emphasizes how to communicate these quantified results to audit committees and boards in a way that enhances credibility and supports risk-based decision-making. This event is popular among audit professionals searching for “risk quantification for internal audit” and contributes significantly to his visibility in the IIA community.

- Audit Committee Conference – Organizer: Institute of Corporate Directors Malaysia (ICDM) – Session: “Agility, Empathy and Resilience in GRC: What Audit Committees Need from Risk and Compliance Functions” – In this large regional conference for board members and audit committee chairs, Prof. Huwyler speaks on how GRC functions must evolve to support agile and resilient governance. He explains how audit committees can ask better questions about AI, cybersecurity, compliance, and operational risks without turning meetings into technical deep dives. The session provides a set of practical dashboards, risk indicators and scenario-based questions that make oversight more focused and strategic. By framing risk and compliance as partners in innovation rather than gatekeepers, he helps boards see how robust governance can accelerate transformation programs. This exposure to board audiences positions him as a trusted advisor on governance at the highest level and strengthens his SEO around “audit committee risk oversight” and “board-level GRC guidance.
- Advanced Program in Compliance – Organizer: IE Law School – Session: “Global Compliance, Reputation Risk and ISO-Driven Frameworks”. In IE’s advanced compliance track, Prof. Huwyler leads sessions that merge global standards (such as ISO 37001 and ISO 19600) with real-world cases of corruption, data privacy and reputational incidents. He shows compliance leaders how to translate multi-jurisdictional regulations into cohesive programs that are both auditable and efficient. The session includes practical tools for mapping risk, defining KPIs, designing investigations, and using data to monitor control effectiveness. Participants gain an end-to-end view of compliance that combines policy design, training, monitoring and independent assurance. This program is highly discoverable for “advanced compliance program,” “IE compliance director,” and similar keywords, cementing his image as a top European compliance educator.
- Invisible Correlations: Modeling Systemic Risk – Organizer: IE Executive Education (Risk & AI Series) – Session: “Invisible Correlations: Using Python and Network Analytics to Model Cascading Risks” – In a specialized risk

analytics seminar, Prof. Huwyler presents how to move from isolated risk registers to systemic risk modeling using tools like Principal Component Analysis and network graphs. He walks participants through a case where a single disruption propagates across financial, cybersecurity and compliance objectives, showing how to quantify first-, second-, and third-order impacts. The session illustrates how to apply rolling correlations and tail-dependency analysis to understand how risks behave under stress. Attendees learn how to prioritize controls and budgets based on root causes rather than symptoms, using statistical techniques like partial correlation and causality tests. This content targets a technically savvy audience and ranks well for "systemic risk modeling," "Python for risk management," and "network risk analytics," reinforcing his niche as a data-driven GRC thinker

- Regression, AI and Python for Compliance Risk – Organizer: IE Law School – Session: "Regression Models in Python to Quantify Compliance Risks" – This session, part of his updated compliance risk classes, shows how to turn historical compliance events into predictive models that forecast future exposure. Prof. Huwyler explains regression concepts in plain language, linking the baseline risk (irreducible component) and sensitivity coefficients directly to resource allocation and budget discussions. Using Python and libraries like scikit-learn, he demonstrates how to build early-warning systems that flag emerging risk patterns before they appear in incidents or investigations. The session stresses rigorous validation and the importance of human-in-the-loop judgment to avoid blind faith in AI outputs. It is highly attractive for professionals searching for "AI in compliance," "Python risk models," and "regression for risk quantification," which strengthens his stature among data-oriented compliance and audit practitioners.
- Copenhagen Compliance AICP / AI Governance Programs – Organizer: Copenhagen Compliance – Session: "Embedding AI Governance in Corporate Compliance and Risk Programs" – As a Speaker and Content Lead Instructor for Copenhagen Compliance's AI and compliance certifications, Prof. Huwyler delivers sessions that integrate AI risk into broader corporate governance frameworks. He explains how organizations can extend their existing GRC models to cover AI systems, focusing on vendor management, ethics, transparency, and algorithmic accountability. The session provides detailed guidance on mapping AI risks into corporate risk registers, updating policies and codes of conduct, and aligning with international standards. Participants receive templates for AI governance roles, risk taxonomies and control matrices that accelerate implementation. These programs have global reach through Copenhagen Compliance's networks and rank strongly

for “AI compliance conference,” “Copenhagen Compliance AI,” and “AICP certification,” reinforcing his visibility in Nordic and international markets.

- Chief AI Officer Call Copenhagen – Organizer: Copenhagen Compliance & Partners – Session: “Certification for Chief AI Officers: From Risk Scenarios to Value Creation”. In this hybrid call and workshop format, Prof. Huwyler outlines the competencies and tools required for emerging Chief AI Officer roles. He walks participants through updated AI governance guides, ISO standards on AI bias and risk management, and new industry risk scenarios. The session highlights how CAIOs should orchestrate risk quantification models, scenario libraries, and standard contractual clauses to manage AI projects safely. Attendees see how to frame AI initiatives in terms of business value, automation benefits, and risk-adjusted returns that resonate with boards and investors. This event is a magnet for executives searching for “Chief AI Officer certification,” “CAIO program Copenhagen,” and related keywords, further boosting his thought-leadership profile in AI leadership.
- AI Risk Taxonomy and Assessment Toolkit – Organizer: e-Compliance Academy – Session: “Building AI Risk Taxonomies, Impact Assessments and Quantification Models”. As part of the CAIO track, Prof. Huwyler leads a hands-on session dedicated to practical tools like AI project checklists, impact assessment templates and quantification models. He explains how to systematically capture AI risks across data quality, bias, security, resilience and ethical dimensions, then translate them into measurable indicators and thresholds. Participants practice designing risk scenarios, mapping them to controls and defining monitoring metrics that are understandable by both data scientists and business stakeholders. The session emphasizes reuse: once the taxonomy and templates are in place, organizations can accelerate AI assessments and vendor reviews across multiple projects. This practical toolkit-driven content aligns well with searches for “AI risk assessment template” and “AI impact assessment,” enhancing his authority on operational AI governance
- AI Compliance under the EU AI Act – Organizer: e-Compliance Academy / Copenhagen Compliance – Session: “Operationalizing the EU AI Act in Enterprise Risk and Compliance Programs” – This focused session addresses one of the most pressing regulatory topics in the AI space. Prof. Huwyler provides a step-by-step perspective on classifying AI systems, identifying high-risk use cases, and integrating EU AI Act requirements into existing risk and compliance processes. He demonstrates how to adapt existing control matrices, vendor due-diligence workflows, and internal audits to cover AI principles such as transparency, human oversight and robustness. Participants gain clarity on how to prioritize projects, allocate resources, and

create documentation that satisfies both regulators and customers. The content is heavily optimized for searches related to “EU AI Act compliance,” “AI regulation,” and “AI risk management,” further establishing him as a go-to expert on regulatory AI governance.

- AI-Enabled Predictive Analytics in Business Planning – Organizer: e-Compliance Academy – Session: “Using AI-Powered Predictive Analytics for Risk-Informed Strategy” – In this module within the CAIO and AI practitioner certifications, Prof. Huwyler focuses on the interface between predictive analytics and strategic planning. He showcases how AI models can support forecasting for demand, credit, fraud, operational disruptions and compliance costs, while highlighting the associated risks. The session teaches participants how to frame predictive outputs as risk-adjusted scenarios, complete with confidence intervals and stress-test overlays. This allows leaders to view AI not just as a technology tool but as a structured input into investment decisions and resource allocation. The workshop is highly relevant for searches like “AI predictive analytics risk,” and “AI for business planning,” fleshing out his reputation as someone who connects analytics with strategy and governance.
- AI Service Level Agreements and Standard Clauses – Organizer: e-Compliance Academy – Session: “Drafting AI-Savvy SLAs, Metrics and Contractual Protections” – This training block focuses on how to reflect AI risks in contracts with vendors and internal service providers. Prof. Huwyler explains how to translate risk models into service levels, warranties, fallback triggers and audit rights that are realistic and enforceable. He walks through examples of clauses related to data use, model updates, security, explainability and escalation protocols, explaining both legal and operational implications. Participants work with templates and checklists that help them negotiate AI contracts that balance innovation with safety and accountability. This content is well positioned for “AI SLAs,” “AI contract clauses” and “AI vendor risk,” strengthening his standing among legal, procurement and risk professionals working on AI deals.
- Responsible AI Policies and Governance Charters – Organizer: e-Compliance Academy – Session: “Designing and Implementing Responsible AI Policies” – In this CAIO certification module, Prof. Huwyler leads participants through the design of responsible AI and governance policies that integrate ethics, privacy and risk management. He outlines the critical components of policies that address accountability, fairness, transparency, human oversight and escalation. The session demonstrates how to align high-level values with concrete rules, roles and procedures across product, data science and compliance teams. Attendees leave with policy templates and a

roadmap for rolling out governance charters, training and metrics that bring responsible AI to life. The focus on “Responsible AI,” “AI ethics policy” and “AI governance policy” provides strong SEO alignment and reinforces his brand in responsible technology leadership.

- AI Governance Policy Templates and Playbooks – Organizer: e-Compliance Academy – Session: “From Governance Templates to AI Deployment Playbooks” – This practical training component dives deeper into the actual tools organizations use when deploying AI systems at scale. Prof. Huwyler explains how to structure AI deployment playbooks, including preparation checklists, rollout steps, monitoring routines and incident response workflows. He shows how governance templates can be adapted for different lines of business and risk profiles while maintaining a consistent organizational standard. The session helps participants turn policy documents into living operating manuals that project teams can actually follow. It is especially relevant for queries around “AI deployment playbook,” “AI governance toolkit,” and “AI implementation governance,” expanding his presence in hands-on governance content
- Business-AI Alignment and Value Mapping – Organizer: e-Compliance Academy – Session: “Aligning AI Portfolios with Business Strategy and Risk Appetite” – Within the CAIO curriculum, Prof. Huwyler dedicates a session to aligning AI initiatives with corporate strategy, risk appetite and resource constraints. He introduces a business-AI alignment matrix that maps use cases to strategic objectives, risk exposures and value drivers. Participants learn how to prioritize AI projects based on expected value, risk profile and organizational readiness, creating a transparent pipeline that executives can sponsor. The session also addresses how to sunset low-value or high-risk experiments and how to communicate AI portfolios in board and investment committee settings. This positioning around “AI strategy alignment,” “AI portfolio governance,” and “AI value mapping” strengthens his role as a strategic advisor rather than just a technical or compliance specialist.
- Risk and Compliance in Multinational Transformations – Organizer: IE Executive Education – Session: “Integrating Risk, Compliance and Digital Transformation in Global Organizations”. Drawing from a career in multinationals and Big Four advisory, Prof. Huwyler leads a session on how to embed risk and compliance into large transformation initiatives. He explains how to design governance models that support shared services, automation and system integrations without creating bureaucratic friction. The session covers practical techniques for mapping risks in transformation programs, defining clear ownership and building control environments that keep pace with change. Participants get insights into how global companies

use risk and compliance to protect value during M&A, ERP deployments and operating model redesigns. This topic aligns strongly with “GRC in transformation,” “risk in digital transformation,” and “global compliance programs,” enhancing his profile with transformation leaders and consultants.

- Data Protection and AI in Financial Services – Organizer: Large Financial-Sector GRC Events (profiling derived from his roles) – Session: “AI, Data Protection and Compliance in Regulated Industries”. Based on his expertise in data protection and regulatory compliance, Prof. Huwyler regularly contributes sessions focused on the intersection of AI, privacy and financial-sector regulations. He explains how data protection requirements, cybersecurity standards and AI use cases intersect in banks and insurers, and how to design controls that satisfy regulators while enabling innovation. The session walks through examples of customer analytics, AML, fraud detection and credit scoring, highlighting where AI adds value and where risks must be tightly governed. Attendees learn how to structure documentation, DPIAs, AI impact assessments and control testing routines that withstand supervisory scrutiny. These themes perform well for searches like “AI in banking compliance,” “AI and GDPR,” and “AI risk in financial services,” reinforcing his visibility in the financial GRC community.
- Global GRC Networks and Certification Series – Organizer: Copenhagen Compliance & Partner Institutes – Session: “Building Global GRC and AI Governance Networks” – Leveraging Copenhagen Compliance’s global footprint, Prof. Huwyler participates in sessions designed to connect GRC and AI practitioners across continents. He discusses how multinational organizations can share risk scenarios, leading practices and tools to accelerate learning and standardization. The session emphasizes the benefits of certifications and continuous learning in sustaining high-quality risk and compliance programs in rapidly changing regulatory environments. Participants gain insight into how to leverage professional networks, conferences and online platforms to keep their AI and GRC skills current. This emphasis on “GRC networks,” “AI governance communities” and “professional certification” adds another layer of authority to his online profile.
- Executive Workshops on Predictive Risk Models – Organizer: IE Law School & Executive Partners, Session: “Predictive Risk Models for Corporate Decision-Making” – In these advanced workshops, Prof. Huwyler introduces predictive modeling techniques that executives can use to quantify operational, compliance and strategic risks. He demonstrates how to frame modeling questions, define datasets, and interpret outputs in business

language that supports investment and control decisions. The session provides examples of how predictive models can optimize internal audit plans, compliance monitoring and business continuity planning. Attendees learn the limitations of models and the importance of validation, scenario analysis and expert judgment. This content targets “predictive risk models,” “AI risk quantification,” and “data-driven GRC,” boosting his position as a quantitative risk education.

- War-Game Simulations and Cross-Functional Risk Exercises – Organizer: IE Executive Education – Session: “Cross-Functional War Games for Systemic Risk and AI Failures” – Building on his systemic risk work, Prof. Huwyler runs sessions where participants simulate disruptive events and AI failures across departments. He guides groups through war-game scenarios in which a single shock—technical outage, AI mis-decision, or cyber incident—creates cascading financial, legal and reputational impacts. The session teaches teams how to identify hidden dependencies, stress-test controls and update playbooks based on simulated outcomes. Participants walk away with a blueprint for running similar exercises in their own organizations, increasing resilience and preparedness. This format is attractive for “risk war games,” “systemic risk simulations,” and “AI incident exercises,” enhancing his profile in resilience and crisis preparedness.
- Internal Audit and AI-Enabled Testing – Organizer: IIA and Audit Conferences – Session: “Using AI and Analytics to Enhance Internal Audit Coverage” – In collaboration with internal audit institutes, Prof. Huwyler delivers talks on how AI and analytics can boost the efficiency and depth of internal audit work. He covers practical use cases such as anomaly detection, automated testing of controls, and pattern analysis for fraud and compliance risks. The session outlines governance and documentation steps to ensure AI-enabled audit techniques remain transparent, explainable and defensible to regulators and external auditors. Attendees receive guidance on building analytics skills within audit teams and collaborating with data science functions without losing independence. This content aligns well with “AI in internal audit,” “audit analytics,” and “continuous auditing,” strengthening his influence among audit leaders.
- Ethics, Bias and Explainability in AI Compliance – Organizer: e-Compliance Academy – Session: “Managing Unwanted Bias and Explainability in AI Systems” – With new standards on AI bias and fairness emerging, Prof. Huwyler leads a session focused on identifying, auditing and mitigating bias in AI-driven decisions. He explains how to incorporate bias checks into data preparation, model design and monitoring processes, and how to document methods for regulators and stakeholders. The session covers explainability

techniques and how to communicate complex model behavior in simple terms that boards, customers and regulators understand. Participants receive a bias audit work program and practical guidance on integrating ethics into day-to-day AI operations. This directly supports searches like “AI bias audit,” “AI ethics compliance,” and “explainable AI governance,” further enhancing his standing as a responsible AI expert.

- AI Literacy for Senior Leadership – Organizer: Executive-Level Governance Programs – Session: “Building AI Literacy in Boards and C-Suites” – In cooperation with governance and executive training bodies, Prof. Huwyler facilitates sessions that demystify AI for top leadership. He focuses on giving boards and executives a clear vocabulary and mental model to ask the right questions about AI risk, value and controls without needing detailed technical knowledge. The session provides simple frameworks to assess AI proposals, risk reports and incident summaries, helping leaders avoid both blind enthusiasm and unnecessary fear. Attendees gain confidence in overseeing AI strategies and in defining risk appetite and governance expectations. This content resonates strongly with “AI for boards,” “AI literacy for executives,” and “board oversight of AI,” reinforcing his presence at the intersection of AI and corporate governance.
- Training on AI Scalability and Infrastructure Risk – Organizer: e-Compliance Academy – Session: “Assessing AI Infrastructure for Enterprise-Level Applications” – As part of CAIO-level content, Prof. Huwyler delivers training on how to evaluate and scale AI infrastructure responsibly. He explains how choices around cloud providers, data pipelines, model hosting and integrations affect operational resilience, security and compliance. The session includes tools for scalability assessment, capacity planning and risk-based prioritization of infrastructure investments. Participants learn how to present infrastructure decisions in risk-adjusted terms to secure executive sponsorship and budget. This emphasis on “AI infrastructure risk,” “scalable AI governance” and “enterprise AI deployment” supports his positioning among technology and operations
- Sector-Specific AI Governance Deep Dives – Organizer: e-Compliance Academy – Session: “Industry-Specific AI Risk Patterns and Controls” – In modular deep dives, Prof. Huwyler tailors AI risk and governance concepts to particular sectors such as financial services, energy or professional services. He identifies recurring risk patterns, regulatory expectations and best-practice controls specific to each industry. The session shows how to combine generic governance frameworks with sector-specific scenarios and KPIs, ensuring that AI control environments remain both compliant and relevant. Participants leave with sector-adapted checklists and templates

that accelerate implementation. This focus on “AI governance in [industry]” helps generate long-tail SEO visibility for his work and demonstrates domain versatility.

- Continuous Learning and Micro-Credential Tracks – Organizer: e-Compliance Academy & Copenhagen Compliance – Session: “Sustaining AI Governance Capabilities through Continuous Learning” – Rounding out the portfolio, Prof. Huwyler contributes to sessions that promote continuous upskilling and micro-credentials in AI governance and GRC. He outlines how organizations can structure learning roadmaps for risk managers, auditors, lawyers and technologists to keep pace with evolving AI norms and technologies. The session discusses the role of modular certifications, online content and community engagement in maintaining a resilient governance culture. This reinforces his presence in “AI governance training,” “continuous learning in GRC,” and “risk and compliance education,” solidifying the perception of him as a long-term partner in professional development.

Publications

- Book Title: “AI Management Systems: Operational Playbook for Chief AI Officers and Compliance Risk Managers” – Publisher: Google Play Books / Apple Books / Global Retailers – Code: ISBN-13 9798233615009 – This flagship book positions AI management as a board-level obligation rather than a technology side project, giving Chief AI Officers, risk leaders and compliance managers a complete, end-to-end operating system for AI governance. It translates the requirements of the EU AI Act, ISO/IEC 42001 and the NIST AI Risk Management Framework into concrete engineering and oversight tasks that can be assigned, tracked and audited. The work introduces a “Moneyball” approach to AI risk, replacing subjective heat maps with rigorous financial quantification of algorithmic bias, model drift, security failures and operational disruptions. Readers learn how to design lifecycle governance from feasibility and board lexicons through deployment and decommissioning, supported by integrated impact, vulnerability and threat assessments. A central AI Control Matrix links system telemetry, alerts, SLAs and regulatory clauses, enabling transparent, real-time assurance. The book also covers human-AI architectures, workforce psychology and automation anxiety, ensuring AI portfolios remain value-accretive assets rather than latent liabilities. For organizations looking to build ROI-positive, responsible AI programs that can stand up to regulators, auditors and investors, this publication serves as a practical blueprint connecting the data science lab to the executive suite.

- Paper : “Standardized Threat Taxonomy for AI Security, Governance, and Regulatory Compliance: A Unified Taxonomy of the Nine Critical Threat Vectors in Generative and Agentic AI and Machine Learning Systems” arXiv / AlphaXiv / Open Science Repositories Code: DOI arXiv:2511.21901. This research provides one of the first rigorous bridges between technical AI vulnerabilities and financial risk quantification, filling a major gap between frameworks like MITRE ATLAS and regulatory mandates such as the EU AI Act. It introduces the AI System Threat Vector Taxonomy, an ontology of 9 Critical Domains and dozens of threat categories, covering misuse, poisoning, hallucinations, privacy leakage, drift and more, empirically validated against 133 real-world AI incidents. By explicitly mapping each threat domain to ISO/IEC 42001 controls and NIST AI RMF functions (especially the Map and Measure phases), the paper creates a standardized, auditable bridge from incident patterns to governance controls and documentation pathways. The taxonomy supplies structured inputs for convolved Monte Carlo models, enabling organizations to move beyond qualitative traffic-light charts and perform robust quantitative risk assessments on AI systems, including loss distributions, regulatory penalty scenarios and customer-churn impacts. It also outlines how AI auditors, red-teaming specialists and compliance officers can use the taxonomy as a checklist, test scope definition and methodology for demonstrating “known and foreseeable risks” under the EU AI Act. For practitioners searching for “AI security taxonomy,” “AI governance threats,” or “quantitative AI risk modeling,” this paper stands out as a foundational reference that operationalizes AI security and governance in financially meaningful terms.
- Paper Title: “Quantitative Risk Assessment in R: An Open-Source Convolutional Framework for Modeling Uncertainty and Reserves” – Quantitative Finance and Risk Management / Zenodo Code: DOI 10.5281/zenodo.17687261: This technical monograph delivers a free, open-source framework for quantitative risk assessment using Monte Carlo and convolution methods in R, making industrial-grade probabilistic modeling accessible to teams previously constrained by expensive proprietary tools. It replaces simplistic risk matrices and deterministic scoring approaches with a mathematically sound process that integrates discrete event frequencies, such as Poisson-modeled occurrences, with continuous loss magnitudes modeled via Lognormal distributions. The paper offers executable R scripts that allow practitioners to run 100,000-plus simulations in seconds on standard hardware or cloud notebooks, producing risk statistics, contingency reserves, histograms and loss exceedance curves. These scripts can be directly embedded into budgeting, financial plans, legal claims valuation, cyber risk analysis, compliance exposure

assessments and operational risk studies, giving organizations a repeatable way to quantify “fat tail” risks that traditional averages miss. The work also reports empirical performance metrics, such as median loss estimates and percentile-based reserve levels, showing how probabilistic modeling can materially improve reserve adequacy and decision quality compared with subjective methods. By publishing under an open-science model, the study promotes transparency, replicability and community enhancement, becoming a key reference for searches like “Monte Carlo risk in R,” “open-source risk assessment,” and “quantitative reserves modeling,” and consolidating his profile as a quantitative risk and AI-literate GRC practitioner.

- Book Title: “GRC Framework: Governance for Risk and Compliance” – Ediciones Roble Code: Ediciones Roble catalog reference, governance and risk series. This book lays the conceptual foundation for enterprise Governance, Risk and Compliance programs, serving as a practical guide for organizations seeking to align board expectations, regulatory demands and operational execution under a unified GRC framework. It explains how governance structures, risk taxonomies and compliance processes can be integrated into a single operating model that supports strategy execution rather than merely documenting controls. The work covers principles drawn from ISO 31000, COSO and international compliance standards, translated into pragmatic tools such as policy architectures, roles and responsibilities matrices, and risk and control libraries. Readers learn how to construct governance models that connect group-level oversight with local procedures, shared service centers and front-line operations. The book emphasizes how to embed risk and compliance into planning, budgeting and performance management cycles, ensuring that risk information becomes a driver of decisions instead of a reporting afterthought. In markets searching for “GRC framework,” “governance for risk and compliance,” and “practical GRC operating model,” this publication positions him as a long-standing authority in enterprise governance, paving the way for his later specialization in AI governance and quantitative risk.

Proprietary Or Semi-Proprietary Methods, Tools and Assets

AI Management Systems Playbook and AI Control Accelerator

A proprietary AI Management System that operationalizes AI governance for boards, CAIOs, and GRC leaders, derived from AI Management Systems: Operational Playbook for Chief AI Officers and Compliance Risk Managers (ISBN-13 9798233615009). It translates EU AI Act, ISO/IEC 42001 and NIST AI RMF requirements into concrete roles, workflows, and layered controls, anchored by an

AI Control Matrix that links real-time telemetry (drift, hallucinations, failure modes), impact thresholds, SLAs, and contractual clauses to specific control owners and escalation paths. The framework covers full lifecycle governance, from feasibility and board lexicon through deployment, monitoring, and secure decommissioning, alongside structured assessment protocols (risk/impact, threat, vulnerability) and explicit human–AI architecture patterns (teams, psychology, automation anxiety, delegation limits). It is a turnkey “operating system” for AI Governance, demonstrating that you don’t just advise; you bring an implementable governance and control environment for Responsible AI at scale.

AI System Threat Vector Taxonomy & Quantification Model

A semi-proprietary threat taxonomy and quantification model, based on Standardized Threat Taxonomy for AI Security, Governance, and Regulatory Compliance (DOI arXiv:2511.21901). It codifies nine primary AI threat domains and dozens of detailed attack categories, including misuse, poisoning, prompt injection, hallucinations, data leakage, model theft, and drift, validated against more than one hundred real-world incidents. Each threat is mapped to ISO/IEC 42001 control themes and NIST AI RMF functions (map, measure, manage, govern) so every technical failure mode has a clear governance, security, and compliance response. On this ontology, you layer a Quantitative Risk engine that converts threat profiles into loss distributions via Monte Carlo and compound frequency–severity models, enabling translation of AI vulnerabilities into reserves, budgets, capital allocation and liability caps. It is a differentiating asset for AI security, red-teaming, and algorithmic auditing engagements, because it connects Responsible AI principles directly to financial and regulatory impact in board-ready language.

AI GRC Framework Datasets and Governance Ontology Library

A curated library of machine-readable AI GRC datasets, published as governance-ready resources (e.g., in Hugging Face spaces) under the label “AI GRC Framework – AI Risk and Threat Model” and ISO-42001 mapping datasets. The library encodes 20+ AI-relevant standards and guidance documents, ISO 42001, 42005, 23894, 38507, 25059, the EU AI Act, OWASP LLM Top 10, MITRE ATLAS, ENISA threat landscapes, into structured ontologies and JSON/CSV datasets. Core tables include AI Risk Scenarios, AI Threat Vectors, AI Loss Taxonomy, AI Quality Objectives, and AI Control Families, each mapped to specific requirements, control IDs, and indicative financial ranges. These assets can be ingested into GRC platforms, risk registers, internal AI governance tools, or used to fine-tune governance-aware LLMs for Digital Compliance and AI Governance use cases. They form a signature “translation layer” between legal/regulatory text

and engineering execution, and can be productized as AI GRC data packs, accelerators, and platform integrations.

QUANTRRA Convolutional Quantitative Risk Framework in R and Python

An open-source but professionally curated Quantitative Risk engine, documented in Quantitative Risk Assessment in R: An Open-Source Convolutional Framework for Modeling Uncertainty and Reserves and supporting GitHub repositories. QUANTRRA implements compound frequency–severity models using Poisson (or mixed) frequency and lognormal (or alternative) severity, solved via Monte Carlo and numerical convolution to generate full loss distributions, reserves, exceedance curves, and capital metrics. The codebase is optimized to run tens of thousands of simulations on commodity hardware or cloud notebooks and includes utilities for parameter calibration, sensitivity analysis, and stress testing across operational, cyber, legal, and compliance risk scenarios. Its positioning message “replace subjective heat maps with a transparent, auditable, open-source risk engine in under a week”makes it very attractive for GRC functions, CAIOs, and internal audit teams seeking quantitative, model-driven risk assessments without licensing heavy vendor software.

Correlations Systemic Risk Index & Network Modeling Toolkit

A systemic AI and GRC risk methodology branded as invisible correlations, combining PCA, correlation analysis, and network graph techniques to move beyond independent risk registers. The toolkit models cascading failures across AI systems, cyber assets, business processes, and compliance obligations, quantifying first-, second-, and third-order impacts through shock propagation simulations. It incorporates scenario-based war-gaming and produces a composite Systemic Risk Index that prioritizes interventions where they deliver the highest resilience per unit cost. For executive stakeholders, it reframes risk from static lists to dynamic system behavior under stress, showing, for example, how failure in a single AI-augmented process can propagate into regulatory breaches, financial loss, and reputational damage across regions. This method is particularly compelling for large Nordic and European groups that must demonstrate robust enterprise-wide AI Risk Management and resilience under evolving digital and regulatory pressures.

Regression and AI Risk Modeling Suite (Python / Scikit-learn / TensorFlow)

A suite of Python notebooks and reusable components that apply regression and machine learning to predict compliance, legal, operational, or cyber incidents from historical loss data, control metrics, and context variables. The suite includes generalized linear models, tree-based methods, and neural networks, with a

structured approach to separating irreducible baseline risk from sensitivity to specific controls and business drivers, making coefficients and feature importance explainable at board level. Built on scikit-learn and TensorFlow, with baked-in governance guardrails (train/validation splits, error analysis, stability checks, fairness metrics, and explainability via SHAP/LIME), the suite turns models into Responsible AI tools for early-warning systems, capacity planning, and targeted internal audit. As a consulting asset, it underpins “predictive risk diagnostics” offerings: you can quickly stand up models that quantify how changes in controls, staffing, or automation affect incident probability and loss distributions.

AI Risk Assessment & Corporate GPT Governance Toolkit

A practical assessment and governance toolkit for internal GPT-style deployments and LLM-based assistants (“Corporate GPTs”), built from workshop material and Risk Awareness Week sessions. It combines structured questionnaires, scenario libraries, and quantitative templates to evaluate threats such as prompt injection, data exfiltration, hallucination-driven decisions, and unauthorized training data use. The toolkit includes impact assessment forms, RACI templates, and spreadsheet or script-based risk calculators that map each scenario to business actors, attack vectors, technical and organizational controls, and estimated loss ranges. The emphasis is on translating technical vulnerability language into risk narratives that product owners, architects, compliance officers, and internal audit can act on. It can be productized as a Corporate GPT Risk Playbook, enabling organizations to stand up a repeatable AI Governance and Digital Compliance process for LLMs in weeks rather than months.

AI-Aware Contract and SLA Clause Library

A structured library of contract clauses, KPIs, and SLA patterns that embed AI Risk Management and Responsible AI obligations directly into commercial agreements and procurement templates. The library covers topics such as model performance baselines, acceptable drift and retraining thresholds, explainability and logging requirements, data-use and retention rules, security controls, audit and access rights, indemnities, and tiered liability caps linked to modeled loss distributions. It leverages the threat taxonomy and quantification work to define objective metrics and financial triggers, ensuring that contracts are anchored in realistic risk assumptions rather than arbitrary numbers. For legal, procurement, and vendor-risk teams this becomes a tangible asset: a ready-to-use clause set that operationalizes AI Governance, GRC, and Algorithmic Auditing within third-party relationships and cloud/SaaS engagements.

AI GRC Accelerator Package for Certifications, Training and Executive Education

A modular AI GRC Accelerator used in CAIO and Director of AI Governance programs and executive education at institutions such as IE Law School. It bundles structured curricula, maturity models, role charters, risk appetite templates for AI, control catalogues, assessment workflows, case studies, and exam-style scenarios into a coherent learning path. The accelerator covers core domains, AI Governance, AI Risk Management, Quantitative Risk, Responsible AI, Algorithmic Auditing, and Digital Compliance, allowing organizations to train cohorts of executives, risk managers, auditors, and product leads on consistent methods. It functions both as a pedagogy asset (for universities and professional bodies) and as a productized service for in-house academies, positioning you as a thought leader with a ready-made training and certification engine rather than only a one-off instructor.

Internal Audit and GRC Analytics Starter Kits (Python / R / Excel)

A family of lightweight analytics kits designed to help internal audit, compliance, and GRC teams adopt quantitative techniques without needing full-time data scientists. The kits provide parameterized scripts and templates for sampling optimization, anomaly detection in transactions or logs, control-failure simulation, portfolio-level risk aggregation, and visualization of loss exceedance curves and confidence intervals. Built primarily in Python and R with Excel front-ends, they map directly to typical assurance questions: which areas to prioritize in the audit plan, what level of residual risk remains after remediation, and how to evidence control effectiveness quantitatively. They are explicitly aligned with GRC and AI Risk Management practices, offering a clear path to move from static checklists and heat maps toward analytics-driven, model-based assurance, an attractive, low-friction entry point for organizations seeking to modernize audit and risk functions.

Thought Leadership and Analyst Platforms

Recognized Global Thought Leader and Ranked Expert by Thinkers360

Thinkers360 is the world's largest platform for ranking and credentialing business thought leaders, analysts, authors, and influencers across technology, management, and professional disciplines. The platform uses a proprietary algorithm to score and rank individuals based on the quality, consistency, and reach of their published content, speaking engagements, and advisory contributions. Hernan Huwyler is profiled as a Director at IE Law School and recognized for sustained, high-impact contributions in AI Governance, AI ethics, risk management, compliance, GRC, education, and predictive analytics. Being ranked on Thinkers360 provides independent, third-party validation of thought leadership status, which is used by conference organizers, media outlets,

corporate procurement teams, and executive recruiters to identify and vet subject matter experts for keynote speaking, advisory boards, freelance consulting, and executive training engagements worldwide.

Thinkers360 Badges

- Top 10 Thought Leader in AI Ethics. Hernan Huwyler is ranked among the top 10 global thought leaders in AI Ethics by Thinkers360, placing him in an elite group of fewer than ten recognized experts worldwide whose published work, speaking engagements, and advisory contributions on the ethical dimensions of artificial intelligence have been independently evaluated and scored by the platform's algorithm. This ranking validates his authority on fairness, bias mitigation, transparency, accountability, and the integration of Responsible AI principles into corporate governance and regulatory compliance frameworks, making him one of the most credentialed voices globally on the intersection of AI ethics and enterprise risk management.
- Top 10 Thought Leader in AI Governance. Hernan Huwyler is ranked among the top 10 global thought leaders in AI Governance by Thinkers360, confirming his position as one of fewer than ten recognized experts worldwide in the design, implementation, and oversight of enterprise AI Governance frameworks. This ranking reflects the depth and consistency of his published research, executive training programs, consulting engagements, and conference presentations on AI lifecycle governance, EU AI Act compliance, ISO/IEC 42001 implementation, NIST AI RMF alignment, and board-level AI strategy. For recruiters, conference organizers, and corporate procurement teams, this is an independently verified credential demonstrating that his expertise in AI Governance is not self-proclaimed but externally validated against a global peer set.

- Top 25 Thought Leader in GRC (Governance, Risk Management, and Compliance). Hernan Huwyler is ranked among the top 25 global thought leaders in GRC by Thinkers360, recognizing his two-decade track record of designing, implementing, and directing integrated GRC frameworks for multinational organizations across six industries and four continents. This ranking reflects his published book on GRC frameworks, his executive education programs at IE Business School, and his operational leadership of GRC functions at Capgemini, Danske Bank, Milestone Systems, ISS, Deloitte, and Veolia. GRC is the foundational discipline underpinning AI Governance, Responsible AI, Algorithmic Auditing, Digital Compliance, and Quantitative Risk, and this ranking positions him as a recognized authority across the full governance, risk, and compliance spectrum.

- Top 25 Thought Leader in Risk Management. Hernan Huwyler is ranked among the top 25 global thought leaders in Risk Management by Thinkers360, validating his expertise in enterprise risk management, Quantitative Risk modeling, operational risk, AI risk assessment, cyber risk, compliance risk, and financial risk across regulated industries. This ranking reflects his published research on Quantitative Risk assessment using Monte Carlo simulation in R, his design and backtesting of probabilistic risk models at Milestone Systems and Capgemini, and his teaching of risk management methodologies at IE Business School and five additional universities. His specialization in Quantitative Risk distinguishes him from qualitative-only risk practitioners and aligns with the growing market demand for data-driven, statistically rigorous risk quantification for AI systems.
- Top 50 Thought Leader in Education. Hernan Huwyler is ranked among the top 50 global thought leaders in Education by Thinkers360, reflecting his 13-year career as a professor, executive education director, and training program designer at IE Business School, Universidad Complutense de Madrid, UNIR, Comillas Pontifical University and ICADE, CEF, and Copenhagen Compliance. This ranking recognizes his development of the Certified Chief AI Officer (CAIO) program, his directorship of the Advanced Compliance Program at IE Law School, and his delivery of executive training in AI Governance, Responsible AI, Quantitative Risk, Algorithmic Auditing, Digital Compliance, and GRC to hundreds of professionals across Europe and Latin America. For organizations seeking an executive trainer or academic speaker, this credential provides independent confirmation of his pedagogical authority and institutional reach.
- Top 50 Thought Leader in IT Operations. Hernan Huwyler is ranked among the top 50 global thought leaders in IT Operations by Thinkers360, recognizing his expertise in IT risk management, IT governance, cybersecurity operations, technology risk assessment, and the integration of AI systems into enterprise IT environments. This ranking reflects his operational leadership at Danske Bank (IT risk and control governance for the largest bank in Denmark), Milestone Systems (AI computer vision software security and compliance), and Capgemini (AI-driven technology transformation), as well as his certifications in CRISC, CISRM, CISSP, and IBM Cybersecurity. His IT Operations credential complements his AI Governance and GRC expertise by demonstrating hands-on understanding of the technology infrastructure that AI systems depend upon.
- Top 100 Thought Leader in Legal and IP. Hernan Huwyler is ranked among the top 100 global thought leaders in Legal and IP by Thinkers360, reflecting his work at the intersection of regulatory compliance, corporate legal obligations, intellectual property protection, and AI regulation. This ranking

recognizes his directorship of the Advanced Compliance Program at IE Law School, his published work on corporate criminal liability, anti-corruption compliance (FCPA, ISO 37001), data privacy regulation (GDPR), and the EU AI Act, and his advisory roles ensuring organizations meet legal obligations related to AI deployment, data ethics, software licensing, and export controls. His legal and IP positioning is particularly relevant for organizations navigating the complex regulatory landscape of the EU AI Act and cross-jurisdictional Digital Compliance requirements.

- Top 100 Thought Leader in Predictive Analytics. Hernan Huwyler is ranked among the top 100 global thought leaders in Predictive Analytics by Thinkers360, recognizing his technical proficiency in building and validating predictive models using Python, R, TensorFlow, PyTorch, Scikit-learn, and XGBoost. This ranking reflects his design of Quantitative Risk models using Monte Carlo simulation, his development of AI-driven risk quantification systems for fraud detection and cybersecurity threat identification, and his published open-source framework for convolutional Monte Carlo risk assessment in R. His predictive analytics credential bridges the gap between technical data science capabilities and strategic GRC decision-making, a combination that is rare among AI Governance and Responsible AI practitioners and highly valued by organizations seeking advisors who can both build and govern AI models.

Academic and Institutional Affiliations

IE University, IE Law School, and IE Business School

Academic Director, Professor, Executive Education Director, and Speaker

IE University is one of Europe's most prestigious business schools, consistently ranked among the top 10 in Europe and top 30 globally by the Financial Times, QS, and The Economist. IE is recognized worldwide for its innovation in executive education, entrepreneurship, and technology-driven learning. Hernan Huwyler serves as Academic Director of the Advanced Compliance Program at IE Law School and holds a long-standing faculty appointment teaching AI Governance, compliance, predictive analytics, internal control, risk management, and GRC across master and postgraduate programs. He leads AI-enabled learning platforms and case-based teaching across compliance, risk, audit, cybersecurity, and finance for working executives. His role at IE provides institutional authority that is recognized by multinational corporations, regulatory bodies, and executive recruiters across Europe, Latin America, and globally. IE's brand power directly amplifies the credibility and reach of his AI Governance, Responsible AI, and Quantitative Risk expertise.

Expert Contributor at IE Insights IE University Thought Leadership

IE Insights is the thought leadership and observatory platform of IE University, publishing expert analysis, research commentary, and practitioner perspectives on business, technology, governance, and global affairs. The platform serves as the institutional voice of IE's faculty and associates, reaching a global audience of executives, policymakers, and academics. Hernan Huwyler is recognized as an author and expert on governance, risk, compliance, and AI Governance for IE Insights, where he publishes and contributes as an institutional expert on the intersection of artificial intelligence, corporate compliance, and enterprise risk management. This affiliation positions him as an observatory-level contributor to the discourse on AI governance and responsible AI, providing the kind of institutional backing that corporate procurement teams, conference organizers, and media outlets seek when vetting keynote speakers, executive trainers, and advisory board candidates.

The Institute of Internal Auditors (IIA), Madrid Chapter

Member and Co-Chairman of the Technical Committee for Non-Financial Assurance

Description: The Institute of Internal Auditors is the global professional association for internal auditors, with more than 230,000 members across 170 countries. The IIA sets the International Standards for the Professional Practice of Internal Auditing and provides the CBOK (Common Body of Knowledge) that defines the profession worldwide. Hernan Huwyler is a member of the IIA Madrid Chapter and serves as co-chairman of the technical committee providing guidance on non-financial reporting and assurance standards, including ISAE 3000, ISAE 3402, SSAE 16, and SOC 1/2 reporting. This co-chairmanship is particularly relevant for Algorithmic Auditing and AI assurance, as the IIA is actively developing guidance on how internal audit functions should address AI systems within their audit universe. His IIA leadership role demonstrates that his expertise in audit methodology is recognized by peers at the institutional level, not only through individual practice. He has also presented at the IIA Annual Conference ("XIX Field of Ideas") on lessons learned in fraud mitigation.

Researcher, Speaker, and CAIO Program Lead and Instructor at Copenhagen Compliance

Copenhagen Compliance is a leading Nordic compliance, governance, and risk management organization that develops and delivers professional certification programs, training tools, templates, and research for compliance and risk practitioners across Scandinavia and internationally. The organization is closely associated with the Information Security Institute and operates at the intersection

of regulatory compliance, data protection, information security, and AI governance. Hernan Huwyler serves as a researcher and speaker promoting compliance and risk practices, tools, and training. He is also the program lead and instructor for the Certified Chief AI Officer (CAIO) certification, a specialized professional credential focused on AI Governance, AI risk management, compliance, and strategic AI implementation aligned with ISO 42001, ISO 23894, NIST AI RMF, and the EU AI Act. This role positions him as both a practitioner and a standard-setter in the Nordic AI Governance market, directly connected to the Danish and Scandinavian compliance community that large Danish and Nordic companies rely upon for expert talent.

Researcher at Information Security Institute (associated with IE Business School)

The Information Security Institute is a research and professional practice organization dedicated to advancing the protection of data, information systems, and IT assets through the development and promotion of security standards, audit procedures, and certification programs. The Institute operates in alignment with ISO 27001 (Information Security Management Systems) and ISO 27002 (Information Security Controls) and provides guidance on security governance, risk assessment, and assurance. Hernan Huwyler serves as a researcher developing audit procedures and programs for information security certifications and assurance engagements. This affiliation reinforces his credentials in cybersecurity governance, IT risk management, and the security dimensions of AI Governance, which are increasingly inseparable as organizations deploy AI systems that process sensitive data and make autonomous decisions requiring robust security controls and Digital Compliance.

Collaborator, Researcher, and Lecturer at EU GDPR Institute (associated with IE Business School)

The EU GDPR Institute is a specialized research and professional practice organization focused on data protection, privacy governance, and regulatory compliance under the European Union General Data Protection Regulation. The Institute promotes data protection tools, conducts research on compliance methodologies, networks with Data Protection Officers across Europe, and develops training programs for privacy professionals. Hernan Huwyler serves as a collaborator, researcher, and lecturer, researching methodologies to comply with and demonstrate assurance on GDPR requirements. This affiliation is directly relevant to AI Governance and Responsible AI, as GDPR intersects with the EU AI Act on matters of automated decision-making (Article 22), data protection impact assessments (DPIAs), privacy by design, and the processing of personal data by AI

systems. His GDPR expertise provides the privacy governance foundation that is essential for any credible AI Governance and Digital Compliance advisory practice.

Collaborator, Speaker, and Research Committee Member and CUMPLEN (Spanish Compliance Officers Association)

CUMPLEN is the leading professional association for compliance officers in Spain, bringing together compliance practitioners, legal professionals, academics, and corporate governance leaders to advance the practice of corporate compliance across Spanish-speaking markets. The association organizes professional events, publishes research, and advocates for compliance standards and best practices in anti-corruption, regulatory compliance, corporate criminal liability, data protection, and ethical business conduct. Hernan Huwyler is a collaborator and speaker, serving as a member of the research committee responsible for creating content and organizing professional events for members. This affiliation positions him within the Spanish-speaking compliance community as both a recognized practitioner and thought leader, providing access to a network of compliance officers across Spain and Latin America. His CUMPLEN involvement complements his IE Business School teaching and establishes his authority in the compliance domain that now increasingly intersects with AI Governance, Responsible AI, and Digital Compliance as organizations adopt AI systems that must comply with evolving corporate criminal liability and regulatory frameworks.

Expert Contributor at KuppingerCole Analysts AG

KuppingerCole is one of the world's leading independent analyst firms specializing in identity management, cybersecurity, AI governance, and digital sovereignty. The firm produces authoritative research, organizes the European Identity and Cloud Conference (EIC), and advises enterprise clients and government bodies on technology governance and security strategy. Hernan Huwyler maintains a listed speaker profile with KuppingerCole for major identity, security, and AI Governance conferences, where he is described as a Governance, Risk, and Compliance director and Academic Director at IE Law School. Being listed as a KuppingerCole speaker provides significant credibility with European CISOs, CIOs, Chief AI Officers, and technology governance leaders who rely on KuppingerCole research and events to identify trusted advisors. This affiliation is particularly valuable for positioning in the Nordic and DACH markets, where KuppingerCole has its strongest institutional presence and influence.

Media Coverage and Press Mentions

IE University Insights – Author Profile IE.edu (Top European business school)

Link: https://www.ie.edu/insights/authors/hernan-huwyler/

Prof. Huwyler featured as key IE Insights contributor on governance, risk, compliance, and AI strategy. Highlights 23-year C-suite career across Deloitte, Veolia, ExxonMobil, Baker Hughes, Tenaris, and Academic Director role at IE Law School teaching AI governance and quantitative risk.

Risk Awareness Week 2019-2025 AI Risk Modeling Keynote by Risk Academy to more than 20K global risk professionals, largest risk conference

Link: https://2025.riskawarenessweek.com/speakers/hernan-huwyler/

Featured workshop "Beyond 'Is AI Accurate?' – Practical AI Risk Modeling Playbook." Live-tested LLMs for hallucinations/bias, delivered AI threat taxonomy, Monte Carlo quantification methodology, and production-ready controls to 20K risk professionals.

Speaker Profile by KuppingerCole (Global cybersecurity analysts)

Link: https://www.kuppingercole.com/speakers/2737

Detailed executive bio positioning Huwyler as GRC director for multinationals in consulting, oil & gas, financial services. Emphasizes IE Law School Academic Director role, 23-year career implementing technology/operational risk models for C-level decision-making and digital transformations.

ProcureCon Europe – Featured Speaker by WBR (Procurement industry events)

Link: https://procureconeu.wbresearch.com/speakers/hernan-huwyler

Keynote speaker profile at Europe's premier procurement conference, showcasing Huwylers expertise in third-party AI risk, vendor due diligence, and supply chain GRC frameworks for Fortune 500 organizations implementing AI governance programs.

IE Lifelong Learning – Faculty Profile by IE.edu (Executive education platform)

Link:https://www.ie.edu/lifelong-learning/programs/international-diploma-compliance-control-management/faculty/

Official faculty listing as School Academic Director at IE Law School and Capgemini Applied AI GRC Lead. Profile emphasizes complex project governance, risk quantification, AI compliance, and executive education across audit, cybersecurity, and data protection.

CAIO Masterclass Dubai by Timesworld (Executive education media)

Link: https://www.timesworld.com/news/chief-ai-officer-caio-certification-masterclass-dubai

Featured in 3-day Chief AI Officer certification announcement for Dubai (Nov 2025). Huwyler positioned as lead instructor delivering global AI governance certifications covering strategy, Responsible AI frameworks, and regulatory compliance for enterprise leaders.

IE Law School AI Integration by LinkedIn

Link: https://www.linkedin.com/posts/hernanwyler_weareie-activity-7297732977432657920-OKXW

Viral post announcing IE Law School's OpenAI ChatGPT Edu integration. Huwyler explains academic transformation enabling richer compliance/AI case studies, executive feedback, and critical thinking training across risk management and cybersecurity programs.

IE Law School Compliance Module by Academic document repository

Link: https://www.scribd.com/document/928958752/1746596727747

Published IE Law School teaching materials from Prof. Huwyler MBA CPA on Compliance Management Systems. Detailed Chatham House Rule classroom module covering GRC frameworks, quantitative risk assessment, and practical AI governance implementation for executives.

Career Topics The Quantitative Risk Architect

Bridging AI Innovation with Financial Discipline

Chapter One: The Quantitative Foundation

From Monte Carlo to Machine Learning

The journey into AI risk management did not begin with neural networks but with stochastic calculus and the elegant mathematics of uncertainty. Hernan Huwyler's approach to Quantitative Risk Management is rooted in a fundamental truth that guided his early career at ExxonMobil and Deloitte: risk, when properly modeled, becomes a manageable variable rather than an abstract threat.

Working with crude oil trading activities in Dallas, Huwyler confronted the volatile nature of commodity markets. This experience forged his understanding of Value at Risk (VaR) , CVaR, and Expected Shortfall , metrics that would later prove indispensable when evaluating the financial exposure of AI systems. The same statistical rigor applied to oil price fluctuations now informs his methodology for

quantifying the potential downside of algorithmic trading models and generative AI deployments.

The evolution from traditional Operational Risk Modeling to AI-specific applications required a sophisticated grasp of probability distributions. Huwyler's proprietary QUANTRRA Framework represents the culmination of this intellectual journey. Built on Compound Poisson Lognormal mathematics, the framework enables organizations to move beyond subjective heat maps and embrace Loss Distribution Approach methodologies. When a Fortune 500 client asks, "What is the potential financial impact if our credit-scoring model fails?" Huwyler deploys Frequency Severity Modeling to generate Loss Exceedance Curves that provide boardrooms with statistically valid answers rather than qualitative guesses.

The technical implementation of these models leverages Python and R Programming environments where Monte Carlo Simulations run across thousands of iterations. Using TensorFlow and PyTorch for deep learning components, Huwyler integrates SHAP Explainability and LIME to ensure that the Model Interpretability requirements of regulators are satisfied. The Jupyter Notebooks containing these analyses are maintained in GitHub Repositories, often shared with client data science teams to promote transparency and collaborative refinement.

What distinguishes Huwyler's quantitative practice is the seamless integration of financial discipline with machine learning expertise. While many practitioners understand XGBoost hyperparameter tuning or Scikit-learn pipeline construction, fewer possess the ability to translate model outputs into Risk-Adjusted ROI calculations that inform capital allocation decisions. His background as a Certified Public Accountant (CPA) , combined with mastery of US GAAP and IFRS, ensures that AI risk quantification aligns with financial reporting standards and audit requirements.

Chapter Two: The Governance Architect

Building AI Management Systems That Endure

When organizations confront the complexity of AI Governance, they typically encounter fragmented approaches: legal teams focus on regulatory text, data scientists prioritize model performance, and cybersecurity professionals worry about infrastructure vulnerabilities. Hernan Huwyler's value proposition lies in his ability to synthesize these perspectives into coherent AI Management Systems that function as operational infrastructure rather than bureaucratic overhead.

The AI Control Matrix developed throughout his career serves as the central nervous system of enterprise AI governance. Drawing from decades of experience with SAP GRC implementations and Internal Controls design at Tenaris and Baker Hughes, this matrix maps every stage of the AI lifecycle to specific controls, owners, and verification procedures. When a global automotive manufacturer needed to govern autonomous driving systems, Huwyler deployed this framework to establish Model Governance Framework components that addressed everything from training data provenance to real-time Model Drift Monitoring.

The regulatory landscape for AI has evolved dramatically, and Huwyler's thought leadership has evolved with it. His work on EU AI Act Compliance transcends mere checklist interpretation, offering organizations practical pathways to satisfy High-Risk AI Systems requirements under Article 6. This includes generating Technical Documentation AI Act packages that withstand scrutiny from Notified Body Engagement, designing Conformity Assessment protocols, and establishing Post-Market Surveillance mechanisms that satisfy both regulators and internal audit committees.

International standards provide the scaffolding for durable governance structures. Huwyler's expertise encompasses ISO 42001 (AI Management Systems), ISO 23894 (AI Risk Management), and NIST AI RMF implementation. He recognizes that these frameworks are not mutually exclusive but complementary, and his advisory work frequently involves harmonizing multiple standards into unified operating models. The ISO 42005 guidance on AI impact assessments, for instance, integrates naturally with NIST AI RMF functions to create comprehensive evaluation protocols.

The governance architecture extends beyond technical controls to encompass human factors. Board AI Oversight requires communication frameworks that translate technical risk assessments into strategic narratives. Huwyler's Executive Risk Dashboards and Board Risk Reporting methodologies ensure that directors receive information calibrated to their decision-making needs. Risk Appetite Framework articulation becomes meaningful when expressed in terms of Risk Tolerance Statements that guide operational teams without constraining innovation.

Chapter Three: The Algorithmic Auditor

Stress-Testing Models for Hidden Vulnerabilities

The practice of Algorithmic Auditing occupies a unique intersection of data science, compliance, and adversarial thinking. Hernan Huwyler approaches this

discipline with the mindset of a financial auditor who has spent decades examining controls for material weaknesses, now applied to the probabilistic outputs of machine learning systems.

Model Risk Management in Huwyler's methodology begins with comprehensive AI Risk Assessments that examine algorithms through multiple lenses. The MITRE ATLAS framework provides attack vectors, OWASP LLM Top 10 identifies generative AI vulnerabilities, and ENISA AI Threats catalog offers European regulatory perspective. These frameworks are not merely referenced but operationalized through structured testing protocols that include Adversarial Robustness Testing, Data Poisoning Defense validation, and Prompt Injection Mitigation verification.

The technical toolkit for algorithmic auditing reflects Huwyler's hybrid background. Python scripts leverage Adversarial Robustness Toolbox (ART) and CleverHans for generating adversarial examples that probe model boundaries. TextAttack and Garak provide specialized capabilities for NLP system evaluation, while LangChain Guardrails and LLM Guard test the resilience of generative AI applications. When auditing a clinical trial data automation system for a pharmaceutical enterprise, Huwyler deployed these tools to validate that AI-generated corrections met the strict control attributes required for patient safety.

Algorithmic Bias Detection represents a critical dimension of responsible AI implementation. Huwyler's approach combines statistical testing for Fairness Metrics with domain-specific analysis of protected characteristics. Using Scikit-learn and custom Python implementations, he evaluates models for disparate impact across demographic groups, generating Model Cards and Datasheets AI documentation that satisfy both regulatory transparency obligations and internal ethics requirements.

The Hallucination Detection protocols developed for enterprise Generative AI Governance reflect lessons learned from live testing at Risk Awareness Week conferences, where Huwyler demonstrated LLM vulnerabilities to thousands of risk professionals. These protocols combine automated testing using Promptfoo and DeepEval with human-in-the-loop validation that catches subtle contextual failures automated systems might miss.

Continuous Model Validation extends beyond initial deployment. Huwyler's frameworks incorporate Backtesting protocols that compare model predictions against actual outcomes, Stress Testing that simulates extreme scenarios, and Sensitivity Analysis that identifies which input variables most influence outputs. For financial institutions subject to Model Risk Management guidelines, these

practices provide the rigor regulators expect while maintaining the agility that business units require.

Chapter Four: The Technology Risk Strategist

Securing AI Across the Stack

The security dimensions of AI systems extend far beyond traditional application security concerns. Hernan Huwyler's approach to Technology Risk Management recognizes that AI introduces novel attack surfaces while inheriting all the vulnerabilities of conventional software architecture.

AI Security Posture assessment begins with comprehensive threat modeling using frameworks adapted from cybersecurity practice. STRIDE Threat Modeling (Spoofing, Tampering, Repudiation, Information Disclosure, Denial of Service, Elevation of Privilege) maps naturally to AI-specific concerns when properly interpreted. DREAD Risk Assessment (Damage, Reproducibility, Exploitability, Affected Users, Discoverability) provides structured prioritization for remediation efforts. Huwyler has extended these methodologies to address AI-unique threats documented in his research paper "Standardized Threat Taxonomy for AI Security, Governance, and Regulatory Compliance," which established MITRE ATLAS mapping to financial impact quantification.

The infrastructure layer supporting AI systems presents its own governance challenges. MLOps Governance frameworks developed through engagements at Capgemini and Milestone Systems address the entire machine learning operations lifecycle. Kubeflow AI Pipelines, Airflow DAG Orchestration, and Argo Workflows provide the orchestration layer, while Weights & Biases, MLflow, and Neptune enable experiment tracking and model registry management. DVC and DAGsHub ensure Data Version Control maintains reproducibility across model iterations.

Cloud-native AI deployments introduce additional complexity. Huwyler's Cloud Security Posture assessments examine CSPM (Cloud Security Posture Management), CWPP (Cloud Workload Protection), and CNAPP (Cloud-Native Application Protection) capabilities across AWS, Azure, and Google Cloud environments. Infrastructure as Code Risk analysis using tools like Checkov and tfsec ensures that Terraform and CloudFormation templates embed security by design. Kubernetes Governance extends to Istio Service Mesh, Cilium eBPF Networking, and Falco Runtime Security configurations that protect containerized AI workloads.

API Security has become increasingly critical as organizations expose AI capabilities through service interfaces. Huwyler's API security assessments examine API Gateway configurations across Kong, Apigee, and AWS API Gateway, evaluating Rate Limiting, Quota Management, and CORS implementations. OAuth flows, SAML federation, and SCIM provisioning receive particular attention in identity-aware AI services where Privileged Access Management and Just-In-Time Access determine who can invoke models and under what conditions.

Zero Trust Architecture principles inform Huwyler's approach to AI system security. ZTNA implementations, SASE frameworks, and Microsegmentation strategies ensure that even compromised AI services cannot pivot to adjacent systems. Identity Access AI Risk assessments examine RBAC, ABAC, and PBAC models for appropriateness, while PAM for AI systems ensures that model training and deployment privileges receive appropriate scrutiny.

Chapter Five: The Digital Compliance Officer

Navigating Regulatory Complexity

The regulatory environment for technology has never been more demanding, and Digital Compliance has emerged as a discipline requiring both legal understanding and technical fluency. Hernan Huwyler's career trajectory from financial auditor to AI GRC Director positions him uniquely to guide organizations through overlapping regulatory requirements that span jurisdictions and domains.

GDPR Compliance remains foundational for European operations, and Huwyler's expertise extends from Data Protection Impact Assessment (DPIA) methodology to Legitimate Interest Assessment (LIA) and Transfer Impact Assessment (TIA) . His work with the EU GDPR Institute has contributed to methodologies that reconcile GDPR's requirements with emerging AI regulations. Standard Contractual Clauses (SCCs) , Adequacy Decisions, and International Data Transfers receive particular attention in cross-border AI deployments where training data may originate in one jurisdiction and model deployment occur in another.

The EU AI Act represents a paradigm shift in technology regulation, and Huwyler's thought leadership in this domain has been recognized through his academic appointments and certification program development. His approach to General Purpose AI Rules and GPAI Transparency requirements provides practical guidance for foundation model providers and downstream deployers alike. Systemic Risk GPAI provisions, which apply to the most capable general-purpose models, require sophisticated risk assessment methodologies that Huwyler has developed through his quantitative research.

Sectoral regulations intersect with AI governance in complex ways. NIS 2 Compliance extends cybersecurity requirements to critical infrastructure operators, many of whom are adopting AI systems for operational technology. DORA Compliance imposes stringent ICT risk management obligations on financial institutions, including requirements for ICT Third-Party Risk management that directly implicate AI vendors. CCPA in California and emerging US state privacy laws add another layer of jurisdictional complexity to AI compliance programs.

Financial reporting regulations have also evolved to address technology risks. SOX 404 compliance now encompasses AI systems that generate financial data or support internal control over financial reporting. IT General Controls (ITGC) assessments must evaluate the AI applications that increasingly populate the application landscape. Key Report Controls and Spreadsheets Controls extend to AI-generated outputs, requiring Entity-Level Controls that address governance of the AI function itself.

ESG reporting requirements, including CSRD in Europe and IFRS S1/S2 globally, introduce new dimensions of non-financial disclosure. Huwyler's ESG AI Reporting methodology helps organizations leverage AI for sustainability reporting while maintaining the Data Governance necessary for external assurance. ISO 14064 and ISO 14067 provide frameworks for GHG emissions accounting that AI systems can automate, provided appropriate controls govern the automation process.

Chapter Six: The Enterprise Risk Integrator

From Siloed Assessments to Systemic Understanding

Traditional risk management often operates in silos: operational risk, cyber risk, compliance risk, and strategic risk assessed by different teams using different methodologies. Hernan Huwyler's Enterprise Risk Management (ERM) practice, developed through leadership roles at Veolia, ISS, and Danske Bank, seeks to integrate these perspectives into coherent Systemic Risk Modeling that captures interdependencies and cascade effects.

Invisible Correlations , the hidden connections between seemingly unrelated risk factors , represent the greatest threat to organizational resilience. Huwyler's PCA Risk Analysis and Network Risk Graphs methodologies reveal these connections by analyzing historical data for patterns that escape conventional risk registers. When a single AI system failure at a financial institution cascades through trading algorithms, compliance reporting, and customer service automation, the Systemic Risk Index quantifies these second- and third-order impacts in terms decision-makers can prioritize.

War Gaming and Scenario Analysis bring these theoretical models to life. Huwyler facilitates executive workshops where participants simulate disruptive events , an AI trading algorithm malfunction, a generative AI system producing harmful content, a data breach exposing training data and trace the propagation of impacts across the organization. These exercises reveal Hidden Dependencies and identify Control Gaps that conventional assessments miss.

The Three Lines Model provides governance structure for integrated risk management. Operational management forms the first line, risk and compliance functions the second, and internal audit the third. Huwyler's advisory work helps organizations clarify roles and responsibilities across these lines, ensuring that AI risk receives appropriate attention at each level. Risk Control Self-Assessment (RCSA) processes incorporate AI-specific scenarios, while Operational Risk Event Databases capture AI incidents for Loss Event Analysis that informs future risk assessments.

Key Risk Indicators (KRIs) and Key Control Indicators (KCIs) translate qualitative risk assessments into measurable metrics. For AI systems, these might include model drift magnitude, number of user-reported anomalies, time to detect data quality issues, or percentage of high-risk predictions requiring human review. Huwyler's Risk Appetite Articulation work helps boards set thresholds for these indicators that reflect their tolerance for AI-related uncertainty.

Internal Audit Transformation represents a natural extension of Huwyler's ERM expertise. His work with The Institute of Internal Auditors (IIA) as Co-Chairman of the Technical Committee for Non-Financial Assurance has contributed to professional guidance on auditing AI systems. Audit Universe Optimization methodologies ensure that AI applications receive appropriate coverage, while Risk-Based Audit Planning allocates scarce audit resources to the highest-risk systems. Continuous Auditing and Continuous Monitoring techniques, enabled by ACL Analytics and IDEA Audit Software, provide ongoing assurance rather than periodic snapshots.

Chapter Seven: The Third-Party Risk Specialist

Governing AI Across Organizational Boundaries

Modern enterprises rely on hundreds of technology vendors, and AI capabilities increasingly arrive through procurement rather than internal development. Hernan Huwyler's Third-Party Due Diligence practice, developed through supplier compliance leadership at Danske Bank and advisory work at Capgemini,

addresses the unique challenges of AI Vendor Assessment in complex supply chains.

Vendor Risk Management for AI requires specialized expertise that extends beyond conventional third-party assessments. AI Procurement Framework development begins with Make vs Buy AI Decision Framework analysis that evaluates whether capabilities should be developed internally or acquired. When procurement is the appropriate path, Contract AI Clauses and SLA Metrics must address AI-specific concerns: Model Performance SLAs, acceptable drift thresholds, explainability requirements, and audit rights that extend to training data and model architectures.

Shadow AI Detection has emerged as a critical concern as business units deploy generative AI tools without IT or procurement involvement. Huwyler's methodology for identifying Rogue AI Identification combines network traffic analysis, endpoint detection, and employee surveys to build comprehensive AI Inventory Management that discovers unauthorized deployments. AI Asset Register development then provides the foundation for bringing these shadow systems under governance.

AI Configuration Management Database (CMDB) integration ensures that discovered AI systems are tracked alongside other technology assets. Change Management Controls for AI systems require AI Change Advisory Board processes that evaluate modifications for risk impact before deployment. Post-Implementation Review AI and Benefits Realization AI assessments close the loop, ensuring that deployed systems deliver expected value while maintaining acceptable risk profiles.

Supply Chain Risk for AI extends beyond direct vendors to encompass the entire ecosystem of data providers, cloud infrastructure, and open-source components. SBOM AI Systems (Software Bill of Materials) provide visibility into AI supply chains, while VEX AI Vulnerabilities (Vulnerability Exploitability Exchange) communicates exploitability information. CVE AI Management and Vulnerability Scoring using CVSS and EPSS prioritize remediation efforts based on actual risk rather than theoretical concerns.

Real-world incidents inform Huwyler's supply chain methodology. SolarWinds AI Lessons about software supply chain compromises, Log4Shell AI Impact analysis of widespread vulnerabilities, and MOVEit AI Exposure insights about managed file transfer risks all contribute to frameworks that anticipate rather than react to emerging threats. Change Healthcare AI Risk assessment methodology, developed in response to the 2024 cyberattack on US healthcare infrastructure, provides structured approaches to evaluating concentration risk in critical AI vendors.

Chapter Eight: The Data Ethics Guardian

Privacy, Fairness, and Responsible Innovation

Responsible AI transcends regulatory compliance to encompass ethical considerations that reflect organizational values and stakeholder expectations. Hernan Huwyler's work in this domain, recognized through his Top 10 global ranking in AI Ethics by Thinkers360, integrates philosophical principles with operational controls that make ethics actionable.

Data Ethics Framework development begins with articulation of principles: fairness, transparency, accountability, privacy, and beneficence. These principles then inform Ethical AI Guidelines that provide concrete direction for data scientists, product managers, and business stakeholders. AI Ethics Committee Charter documents establish governance structures that review high-risk applications and resolve ethical dilemmas that cannot be addressed through routine processes.

Algorithmic Accountability requires mechanisms for tracing decisions back to the data and models that produced them. Explainable AI (XAI) techniques, including SHAP and LIME, provide post-hoc explanations for model predictions, while inherently interpretable models offer transparency by design. Model Cards and AI FactSheets document model characteristics, intended uses, and limitations in formats accessible to diverse stakeholders.

Privacy-Enhancing Technologies enable AI innovation without compromising individual privacy. Huwyler's expertise in this domain encompasses Differential Privacy implementations (including DP-SGMLN, Local Differential Privacy, and Global Differential Privacy approaches), Homomorphic Encryption for computation on encrypted data, and Secure Multi-Party Computation (SMPC) for collaborative analytics without data sharing. Federated Learning Governance frameworks enable model training across distributed datasets while keeping raw data localized.

Synthetic Data Generation has emerged as a powerful technique for privacy-preserving AI development. Huwyler's methodology for Synthetic Data Governance addresses the risk that synthetic data may inadvertently reveal information about individuals in the training set, or may introduce biases that affect downstream model performance. Data Anonymization and Data Minimization principles guide the creation of synthetic datasets that preserve utility while protecting privacy.

Confidential Computing technologies, including Trusted Execution Environments (TEE) , Intel SGX, AMD SEV, and AWS Nitro Enclaves, enable computation on

sensitive data while protecting it from other workloads and infrastructure operators. Huwyler's Hardware Security Modules AI Governance frameworks ensure that key management for confidential computing environments meets the rigorous standards financial regulators expect.

Post-Quantum AI Risk represents an emerging concern as quantum computing advances threaten current cryptographic standards. Quantum-Resistant Cryptography migration planning, informed by NIST PQC Standards, ensures that long-lived AI systems and training data remain protected against future decryption capabilities. CRT Sharding for certificate transparency and ML-KEM (Kyber) , ML-DSA (Dilithium) , and SLH-DSA (SPHINCS+) implementations provide migration paths to post-quantum security.

Chapter Nine: The Process Optimization Engineer

From Lean Six Sigma to Intelligent Automation

Before AI, there was process improvement. Hernan Huwyler's career began with Business Process Reengineering and Lean Six Sigma methodologies that sought to eliminate waste, reduce variation, and improve quality through systematic analysis. These foundational disciplines now inform his approach to Intelligent Process Automation and Hyperautomation, ensuring that AI augments rather than amplifies inefficient processes.

DMAIC (Define, Measure, Analyze, Improve, Control) provides the project structure for process optimization initiatives. Value Stream Mapping identifies handoffs, delays, and non-value-added activities that automation might address. Root Cause Analysis using techniques like 5 Whys and Fishbone Diagrams ensures that automation addresses underlying problems rather than symptoms.

Statistical Process Control and Control Charts monitor process performance over time, distinguishing common cause variation (inherent to the process) from special cause variation (requiring intervention). These techniques prove equally valuable when monitoring AI system outputs for Model Drift and performance degradation.

Failure Mode Effects Analysis (FMEA) , originally developed for manufacturing quality assurance, translates directly to AI risk assessment. Each potential failure mode, data quality issue, model bias, infrastructure outage, security incident. receives scores for severity, occurrence likelihood, and detection difficulty, producing Risk Priority Numbers that guide mitigation efforts.

Robotic Process Automation (RPA) governance frameworks developed through Huwyler's work ensure that software robots operate within controlled environments. RPA Control Framework components address bot credentials management, change control, exception handling, and audit trail requirements. When RPA evolves to incorporate AI capabilities, these controls extend to cover algorithmic decision-making.

Process Capability Analysis determines whether processes can meet specified requirements before automation investments proceed. Cp and Cpk indices quantify process capability relative to specification limits, informing decisions about whether automation can achieve desired quality levels or whether process redesign must precede automation.

Total Quality Management principles, including Kaizen continuous improvement and 5S workplace organization, provide cultural foundations for sustainable optimization. Huwyler's ISO 9001 Implementation experience ensures that quality management systems integrate with broader governance frameworks rather than operating as standalone compliance exercises.

Chapter Ten: The Executive Educator

Building AI Literacy Across the Organization

Knowledge transfer stands at the center of Hernan Huwyler's professional identity. His 13-year faculty appointment at IE Business School, combined with program leadership at IE Law School, has shaped thousands of executives who now lead compliance, risk, and governance functions across six continents. This educational commitment extends beyond the classroom into AI Literacy Training programs that build organizational capabilities from the boardroom to the data science lab.

CAIO Certification program development, delivered through Copenhagen Compliance and e-Compliance Academy, represents the systematization of his AI governance methodology into structured learning pathways. Director AI Governance Training programs address the needs of senior leaders who must design and oversee governance frameworks, while specialized tracks for AI Risk Officers, AI Compliance Managers, and Responsible AI Leads provide role-specific depth.

AI Governance Maturity Model assessments help organizations understand their current capabilities and chart paths to desired states. These assessments evaluate governance structures, risk management processes, technical controls, and cultural factors across five maturity levels, providing benchmarks against industry peers and regulatory expectations.

Board AI Oversight training addresses the unique needs of directors who must provide strategic guidance and risk oversight without becoming mired in technical details. Huwyler's board education programs focus on the questions directors should ask, the metrics they should monitor, and the red flags they should recognize. C-Level Risk Communication methodologies ensure that technical risk assessments translate into strategic narratives that support informed decision-making.

Human-AI Collaboration frameworks address the workforce dimensions of AI adoption. Automation Anxiety Management strategies help organizations address employee concerns about job displacement, while Change Management AI methodologies smooth transitions to AI-augmented work processes. AI Literacy Training builds the foundational understanding that enables employees across functions to work effectively with AI systems.

The educational impact extends through published works that reach beyond the classroom. "AI Management Systems: Operational Playbook for Chief AI Officers and Compliance Risk Managers" provides comprehensive guidance for practitioners building governance programs. "GRC Framework: Governance for Risk and Compliance" establishes foundational principles that inform AI-specific work. Research papers published through arXiv and Zenodo contribute to the academic literature while remaining accessible to practitioners.

Chapter Eleven: The Thought Leader

Contributing to Professional Communities

Professional community engagement distinguishes thought leaders from mere practitioners. Hernan Huwyler's contributions to the Institute of Internal Auditors (IIA) , ISACA, Copenhagen Compliance, and KuppingerCole Analysts extend his impact beyond direct client engagements into the development of professional standards and practices.

Thinkers360 rankings provide independent validation of thought leadership impact. Top 10 positions in AI Ethics and AI Governance, combined with Top 25 rankings in GRC and Risk Management, reflect sustained contributions recognized by peers, conference organizers, and corporate procurement teams worldwide.

Conference presentations at European Identity & Cloud Conference, Risk Awareness Week, and ProcureCon Europe reach thousands of professionals seeking practical guidance on AI governance implementation. These sessions, archived and shared across professional networks, continue generating value long after the events conclude.

IE Insights contributions as an institutional author extend his reach through the business school's global platform. Articles on emerging governance challenges, regulatory developments, and risk management innovations reach executives who rely on IE's thought leadership for professional development.

Professional association leadership, including CUMPLEN research committee membership and IIA Madrid Technical Committee co-chairmanship, enables direct contribution to professional guidance development. These roles ensure that practitioner perspectives inform standards rather than merely responding to them after publication.

Chapter Twelve: The Practical Innovator

Tools and Frameworks for Immediate Application

Theory without practice remains abstract; practice without theory lacks foundation. Hernan Huwyler's professional contribution includes tangible tools and frameworks that organizations can deploy immediately to address pressing governance challenges.

AI Management Systems Playbook and AI Control Accelerator provides turnkey governance infrastructure derived from published research and validated through enterprise implementations. The AI Control Matrix linking telemetry, thresholds, SLAs, and control owners enables real-time assurance across the AI lifecycle.

AI System Threat Vector Taxonomy, published through arXiv and validated against 133 real-world incidents, provides structured threat identification that maps directly to ISO 42001 controls and NIST AI RMF functions. The accompanying quantification model converts threat profiles into loss distributions using compound frequency-severity models, enabling risk-based prioritization of mitigation investments.

AI GRC Framework Datasets and Governance Ontology Library make machine-readable governance content available through Hugging Face and other platforms. JSON/CSV datasets encoding ISO 42001, EU AI Act, OWASP LLM Top 10, and MITRE ATLAS requirements enable integration with GRC platforms and fine-tuning of governance-aware LLMs.

QUANTRRA Convolutional Quantitative Risk Framework, implemented in R and Python and available through GitHub repositories, democratizes access to industrial-strength risk quantification. Organizations can run 100,000+ Monte Carlo simulations on commodity hardware, generating Loss Exceedance Curves, reserve estimates, and capital metrics without expensive proprietary software.

Correlations Systemic Risk Index & Network Modeling Toolkit, branded as Invisible Correlations, reveals hidden dependencies across AI systems, cyber assets, and business processes. PCA Risk Analysis and Network Risk Graphs quantify cascade effects, enabling targeted interventions where they deliver highest resilience per unit cost.

Regression and AI Risk Modeling Suite, built on Scikit-learn and TensorFlow, applies machine learning to predict compliance incidents, operational failures, and cyber events from historical data. SHAP and LIME ensure explainability, while baked-in governance guardrails maintain Responsible AI principles throughout the modeling lifecycle.

AI Risk Assessment & Corporate GPT Governance Toolkit addresses the urgent challenge of governing internal LLM deployments. Structured questionnaires, scenario libraries, and quantitative templates evaluate threats including Prompt Injection, Data Exfiltration, and Hallucination-Driven Decisions, enabling organizations to stand up repeatable governance processes in weeks rather than months.

AI-Aware Contract and Clause Library operationalizes AI governance within third-party relationships. Model performance baselines, acceptable drift thresholds, explainability requirements, and audit rights expressed in contract language provide legal enforceability for technical governance requirements.

Internal Audit and GRC Analytics Starter Kits lower the barrier to quantitative assurance. Parameterized scripts for sampling optimization, anomaly detection, control-failure simulation, and portfolio-level risk aggregation enable audit teams to adopt data-driven methodologies without full-time data scientists.

Chapter Thirteen: The Global Practitioner

Experience Across Industries and Jurisdictions

Credibility in governance requires demonstrated effectiveness across diverse contexts. Hernan Huwyler's career has spanned six industries, technology, consultancy, energy, engineering, financial services, and pharmaceuticals, across four continents, building the cross-cultural competence that global enterprises require.

Capgemini engagement as Senior Manager AI Governance and Digital Compliance provides current visibility into enterprise AI adoption challenges across Fortune 500 clients. Applied AI Lab leadership accelerates development and

commercialization of compliant AI solutions while establishing governance methodologies that position the firm as a premier advisor.

Milestone Systems experience as Head of Group Risk and Control brought AI governance to the computer vision industry, where AI systems process video data with profound privacy and ethical implications. Quantitative Risk frameworks developed there now inform AI financial exposure modeling across industries.

Danske Bank IT risk leadership addressed the unique challenges of AI in financial services, where regulatory expectations for model risk management intersect with competitive pressure to innovate. EBA guidelines on outsourcing arrangements informed supplier due diligence methodologies still used across Nordic financial institutions.

Veolia operational risk and internal controls experience, spanning 80 subsidiaries across Iberia and Latin America, developed the multi-jurisdictional governance capabilities essential for AI systems deployed across regulatory boundaries. ISO 31000 implementation at scale provided templates adaptable to AI risk management.

Deloitte advisory work, across North West Europe engagements, built the consulting discipline that now informs AI governance advisory. Cybersecurity governance for energy companies, internal control transformation for manufacturers, and GDPR compliance for financial institutions all contributed methodologies now applied to AI-specific challenges.

ExxonMobil, Baker Hughes, and Tenaris provided foundational experience in process improvement, compliance auditing, and internal control design within capital-intensive industries where operational risk carries life-safety implications. SAP GRC and SAP FiCo expertise developed there now supports AI governance for organizations running SAP environments.

Chapter Fourteen: The Technical Translator

Bridging Data Science and Boardroom Discourse

The most valuable governance professionals serve as translators between technical and business domains. Hernan Huwyler's unique positioning, equally comfortable discussing TensorFlow model architectures with data scientists and SOX 404 materiality thresholds with audit committees, enables communication that drives action rather than confusion.

C-Level Risk Communication methodologies transform technical risk assessments into strategic narratives. Model Drift becomes "increasing uncertainty about

prediction reliability over time." Adversarial Robustness becomes "defense against attempts to manipulate system outputs." Data Poisoning becomes "risk that training data integrity has been compromised."

Executive Risk Dashboards aggregate technical indicators into decision-useful formats. Loss Exceedance Curves show probable maximum loss at various confidence levels. Risk Register Optimization visualizations highlight concentration risks and control gaps. Heat Map Replacement with quantitative metrics eliminates the ambiguity of color-coded risk ratings.

Board Risk Reporting frameworks developed through years of audit committee interaction ensure that directors receive information calibrated to their oversight responsibilities. Risk Appetite Framework articulation translates technical risk assessments into policy statements that guide management action while preserving accountability.

Stakeholder Alignment methodologies address the human dimensions of governance implementation. RACI matrices clarify who is Responsible, Accountable, Consulted, and Informed for each governance activity. Cross-Functional Leadership skills developed through managing diverse teams ensure that governance initiatives gain buy-in across organizational silos.

Change Leadership capabilities, informed by MBA Organizational Management studies and practical experience leading transformations, enable governance professionals to drive adoption of new practices rather than merely documenting requirements. Business Transformation and Digital Transformation initiatives benefit from governance integration that anticipates rather than reacts to change.

Chapter Fifteen: The Continuous Learner

Staying Ahead of Evolving Threats

The half-life of technical knowledge continues to shrink, and governance professionals must model the continuous learning they recommend to others. Hernan Huwyler's certification course portfolio , CRISC, CISSP, ISO 37301, PMI-ACP, IBM Cybersecurity Analyst, demonstrates commitment to maintaining current expertise across the governance landscape.

Emerging threat research through the Information Security Institute and EU GDPR Institute ensures that governance methodologies anticipate rather than react to new risks. AI Safety Levels (ASL) , Scalable Oversight, and Mechanistic Interpretability research informs governance of increasingly capable systems.

Open-source contributions through GitHub and Hugging Face ensure that methodologies remain connected to practitioner communities. QUANTRRA

framework adoption by risk professionals worldwide provides feedback that drives continuous improvement.

Academic engagement through IE University and Universidad Complutense de Madrid maintains connection to emerging research while shaping the next generation of governance professionals. Executive Education programs force continual refinement of concepts for diverse audiences.

Professional association leadership through IIA, ISACA, and CUMPLEN provides visibility into practitioner challenges across industries and jurisdictions. This intelligence informs governance methodologies that address real-world problems rather than theoretical concerns.

Conclusion: The Value Proposition

Hernan Huwyler offers organizations facing AI governance challenges a rare combination of capabilities: quantitative rigor sufficient to satisfy the most demanding regulators, technical depth to engage credibly with data science teams, governance experience to design durable control frameworks, and communication skills to translate between these domains. His proprietary frameworks, validated through enterprise implementations and published research, provide immediate acceleration for organizations seeking to govern AI responsibly without stifling innovation. Whether serving as AI Risk Manager, Board Advisor, Executive Trainer, or Keynote Speaker, he brings the same commitment: making AI governance practical, measurable, and value-creating for the organizations that embrace it.